

WT3019

RECEIVED

10 E

MAR 20 2015

disk m15E

Office of Air, Waste & Toxics

3-1-2015

Report

Fourth Quarter 2014 Operations and Monitoring Report *Remedial Action Pilot Study*



Former J.H. Baxter & Co. Wood Treating Facility
Arlington, Washington

Prepared for

U.S. Environmental Protection Agency
Region 10
1200 Sixth Avenue
Seattle, WA 98101

Submitted by

J.H. Baxter Team
P.O. Box 10797
Eugene, OR 97440

FILE COPY

March 2015

Prepared by



55 SW Yamhill Street, Suite 300 • Portland, OR 97204
P: 503.239.8799 • F: 503.239.8940
info@gsws.com • www.gsws.com



Contents

Section	Page
1. Introduction.....	1
2. Remedial Action Pilot Study.....	1
3. Operations and Maintenance	2
3.1 Groundwater Level Measurements	2
3.2 Groundwater Monitoring and Water Quality.....	3
3.3 Extraction Wells.....	5
3.4 LNAPL Recovery.....	5
3.5 Quality Assurance and Quality Control	6
3.6 Activities Planned for 2015	6
4. References	7

Tables

Table 1	Groundwater Elevation Summary
Table 2	Incremental Changes in Groundwater Elevation
Table 3	Vertical Groundwater Gradients at Monitoring Well Pairs
Table 4A	Summary of Groundwater Sampling Analytical Results: 2008 through Fourth Quarter 2014
Table 4B	Analytical Results of Pentachlorophenol and Breakdown Products in Extraction Well Composite Samples
Table 4C	Historical Analytical Results for Pentachlorophenol and Breakdown Products in Extraction Well Composite Samples
Table 4D	Analytical Results of Pentachlorophenol and Breakdown Products in Individual Extraction Wells
Table 5	Bacteriological Analysis Results for Heterotrophic Plate Count
Table 6	Light Non-Aqueous Phase Liquid (LNAPL) Recovery

Contents

Section	Page
Figures	
Figure 1	Site Vicinity Map
Figure 2	Groundwater Monitoring Network
Figure 3	Groundwater Elevation Contour Map: Baseline Elevations, January 28, 2008
Figure 4	Groundwater Elevation Contour Map: Fourth Quarter 2014
Figure 5	Groundwater Differential Contour Map: Fourth Quarter 2014
Figure 6	Vertical Groundwater Gradient Trends
Figure 7	Pentachlorophenol in Groundwater: Fourth Quarter 2012 – Fourth Quarter 2014
Figure 8	Pentachlorophenol Isopleth Map: 2008
Figure 9	Pentachlorophenol Isopleth Map: 2009
Figure 10	Pentachlorophenol Isopleth Map: 2010
Figure 11	Pentachlorophenol Isopleth Map: 2011
Figure 12	Pentachlorophenol Isopleth Map: 2012
Figure 13	Pentachlorophenol Isopleth Map: 2013
Figure 14	Pentachlorophenol Isopleth Map: 2014
Figure 15	Pentachlorophenol Isopleth Map: Fourth Quarter 2014
Figure 16	Pentachlorophenol Isopleth Map, Deep Zone: Fourth Quarter 2011 – Second Quarter 2012
Figure 17	Pentachlorophenol Isopleth Map, Deep Zone: Third Quarter 2012 – First Quarter 2013
Figure 18	Pentachlorophenol Isopleth Map, Deep Zone: Second Quarter 2013 – Fourth Quarter 2013
Figure 19	Pentachlorophenol Isopleth Map, Deep Zone: First Quarter 2014 – Third Quarter 2014
Figure 20	Pentachlorophenol Isopleth Map, Deep Zone: Fourth Quarter 2014
Figure 21	Cross Section A-A' Pentachlorophenol in Groundwater: Fourth Quarter 2014
Figure 22	Total PAHs in Groundwater: Fourth Quarter 2012 to Fourth Quarter 2014

Contents

Section	Page
Appendices	
Appendix A Groundwater Elevation Sections and Hydrographs	
Appendix B Laboratory Reports and Chain-of-Custody Documentation	
Appendix C Time Series Plots: Pentachlorophenol and Total PAHs in Groundwater	
Appendix D Laboratory Data Validation Memorandum	

1. Introduction

The J.H. Baxter Team, consisting of J.H. Baxter & Co. (Baxter) and GSI Water Solutions, Inc. (GSI), has prepared this *Fourth Quarter 2014 Operations and Monitoring Report - Remedial Action Pilot Study* (O&M Report) for the Stella-Jones (formerly Baxter) Arlington, Washington, wood treating facility (Arlington facility, facility, or Site) located at 6520 188th Street NE (Figure 1). This report has been prepared for the U.S. Environmental Protection Agency (EPA) to document the results of groundwater monitoring and remedial action for the Site during the fourth quarter 2014 (October 1, 2014, to December 31, 2014).

The Remedial Action Pilot Study is considered to be part of the ongoing Corrective Measures Study (CMS), which is being implemented pursuant to Paragraph 53 of the EPA Administrative Order on Consent (AOC) dated April 30, 2001 (EPA, 2001). CMS-related activities were conducted consistent with guidance provided by EPA in the Resource Conservation and Recovery Act (RCRA) Corrective Action Plan (Final), dated May 1994 (EPA, 1994), Corrective Actions Advance Notice of Proposed Rulemaking (EPA, 1996), and the AOC.

This quarterly report fulfills the documentation required for the ongoing operations and maintenance (O&M) related to the *Remedial Action Pilot Study Work Plan* (Baxter, 2007a) and *Remedial Action Pilot Study Performance Monitoring Plan* (Baxter, 2007b; PMP), which were submitted to EPA in 2007.

For ease of comparison, this report is assembled, along with the subsequent tables, figures, and appendices, in the same general format as previous quarterly O&M reports for this Site.

2. Remedial Action Pilot Study

The Remedial Action Pilot Study was designed to enhance in situ bioremediation and passive recovery of light non-aqueous phase liquid (LNAPL). This includes an extraction well network, infiltration trench, recovery wells, and monitoring well network (Figure 2). The pilot study installation was completed in January 2008, with six additional monitoring wells added in 2010.

The purpose of the enhanced in situ bioremediation (the recirculation system) is to increase groundwater pH for favorable conditions for biodegradation of pentachlorophenol (PCP). The recirculation system uses seven extraction wells to extract affected groundwater, which is pumped in an infiltration trench upgradient of the extraction wells. The infiltration trench is composed of crushed limestone, which increases the pH of the affected groundwater when contact is made. Additionally, LNAPL is passively recovered in five recovery wells with the installation of sorbent socks.

3. Operations, Maintenance, and Monitoring

Routine monitoring changed from monthly to quarterly in July 2010 with EPA's approval (EPA, 2010). Routine monitoring includes:

- Record groundwater level measurements in the monitoring well network.
- Collect groundwater samples from the monitoring well network.
- Collect a composite groundwater sample from the extraction wells.
- Inspect the sorbent socks in the recovery wells and replace if saturated.

3.1 Groundwater Level Measurements

Groundwater monitoring occurred on November 16 and 17, 2014, for the fourth quarter 2014. The groundwater elevations from the fourth quarter 2014 monitoring event, and the past four monitoring events, are presented in Table 1. The groundwater elevations from the same monitoring events also are compared to the groundwater levels on January 28, 2008, which are the baseline elevations before the installation and startup of the pilot recirculation system (Table 2). This comparison includes the total changes in groundwater elevation since the baseline monitoring event and incremental changes in groundwater levels between each monitoring event. Generally, with a few exceptions, groundwater in wells downgradient from the extraction wells decreased in elevation while groundwater in wells in the vicinity of the infiltration trench increased in elevation.

Groundwater elevation contour maps of the baseline monitoring event (pre-pilot recirculation system) from January 28, 2008, and the fourth quarter 2014 monitoring event are presented in Figures 3 and 4, respectively. The contour map of the difference in groundwater elevations between the baseline monitoring event and the fourth quarter 2014 monitoring event is presented in Figure 5.

Appendix A provides additional figures with more detailed analysis of groundwater elevations across the Site that provides information regarding the recirculation system's operation. Figure A-1 is a cross section location map. Figures A-2 and A-3 present the groundwater elevations along each cross section from the fourth quarter 2014 and the baseline monitoring events. The wells along each transect have been identified as a shallow well, intermediate well, or deep well based on the following classifications:

- A shallow well has the elevation of the bottom of the screen above 90 feet, North American Vertical Datum of 1988 (NAVD88).
- An intermediate well has the elevation of the bottom of the screen between 70 and 90 feet, NAVD88.
- A deep well has the elevation of the bottom of the screen below 70 feet, NAVD88.

Well clusters of different screened intervals were developed to evaluate vertical gradients. In Appendix A, Figures A-2 and A-3 display the vertical gradients for select well pairs. Figure A-3 shows that water levels in the shallow zone, where the extraction and infiltration occurred, were higher in the area of infiltration and lower in the area of extraction as would be expected. The MW-25 and MW-32 well pair (Figure A-3) shows a downward gradient that is consistent with past trends and to be expected near the infiltration trench where

higher shallow water levels were present. There is an upward gradient between the deeper zone and shallow zone near the extraction wells (MW29/MW-38 well pair). In between the infiltration trench and extraction wells, at well pair MW-3/MW-33, there is minimal vertical gradient. Downgradient of the recirculation system, there is a small downward gradient between the intermediate/deep wells (MW-37/MW-41 and MW-40) and the shallow well (MW-15).

The vertical gradients for each well pair are presented in Table 3 and Figure 6, where a negative gradient indicates an upward trend and a positive gradient indicates a downward trend. In Figure 6, well pair MW-25/MW-32's gradient has a larger magnitude when compared with the other well pairs' gradients on the primary y-axis. This is expected in the area of infiltration. The vertical gradients for well pairs MW-29/MW-38 and MW-37/MW-41 show a downward gradient where previously a small upward gradient was present (Figure 6). Other well pairs (MW-25/MW-32, MW-3/MW-33, MW-29/MW-34, and MW-15/MW-40) are similar to previous monitoring events.

Hydrographs for each monitoring well are presented in Appendix A, Figures A-4 through A-23, along with precipitation data. Daily precipitation data, consisting of rain and snowmelt, are from the National Climatic Data Center's station in Arlington, Washington. Trends between the groundwater elevation and precipitation are shown in the hydrographs, with groundwater levels rising after periods of higher precipitation and groundwater levels decreasing after periods of low or no precipitation. Fourth quarter 2014 groundwater elevations were generally similar to third quarter 2014 elevations, with some discrepancies, and the precipitation levels were fairly similar for the two monitoring events. The exception is well MW-39 for which the water level data showed a drop in elevation in June 2014 from around 105 feet NAVD88 to 96.94 feet NAVD88. In the 2 subsequent water level monitoring events, the elevation is slightly above 105 feet NAVD88 which is similar to previous events. Therefore, it is likely that the measurement in June 2014 may have been an erroneous reading and not associated with a site event or the operation of the infiltration system.

3.2 Groundwater Monitoring and Water Quality

The fourth quarter 2014 groundwater sampling occurred within the groundwater monitoring event, which took place on November 16 and 17, 2014. A total of 31 monitoring wells within the monitoring well network were sampled and a composite sample was collected from the running extraction wells. The following monitoring wells were sampled for PCP by EPA Method 8151A:

- HCMW-7
- MW-22 through MW-29
- MW-31 through MW-34
- MW-38 through MW-43
- Composite sample of EW-2 and EW-4 (sampled for PCP and its breakdown products).

The following wells were analyzed for PCP by EPA Method 8151A and polycyclic aromatic hydrocarbons (PAH) by EPA Method 8270D SIM:

- BXS-1 and BXS-2
- MW-2 and MW-3
- MW-15 through MW-18
- MW-30
- MW-35 through MW-37

Wells were sampled using dedicated submersible bladder pumps in "Site Investigation" wells installed in before 2004, and a portable submersible pump in "PMP" wells installed in 2007 or later, which was decontaminated between each well. Groundwater samples were collected by Baxter personnel in general accordance with the *Revised Supplemental Dissolved-phase Groundwater Monitoring Plan* (Baxter, 2005) and *Site Investigation Work Plan* (Baxter, 2002). Samples were analyzed by ALS Environmental (ALS) in Kelso, Washington. Laboratory reports are presented in Appendix B. Monitoring well analytical results are summarized in Table 4A. Extraction well analytical results are summarized in Tables 4B and 4C, with historical analytical data in Tables 4D for comparison. Table 5 presents the bacteriological analysis from select wells in 2010.

PCP results for the fourth quarter 2014 are presented in Figure 7. Historical quarterly PCP isopleth maps for the shallow and intermediate zones combined since 2008 are shown in Figures 8 through 14, with each figure consisting of 1 calendar year of PCP isopleth maps. The fourth quarter 2014 PCP isopleth map for the shallow and intermediate zones combined is presented in Figure 15. Historical quarterly PCP isopleth maps in the deep zone since fourth quarter 2011 are shown in Figures 16 through 19. The fourth quarter 2014 PCP isopleth map for the deep zone is presented in Figure 20. Figure 21 displays the PCP concentrations from the fourth quarter 2014 along a cross section longitudinal to the PCP plume. Time series plots of PCP and PAH concentrations by well are available in Appendix C. PAH concentrations for the fourth quarter 2014 are presented in Figure 22.

Generally, PCP concentrations in the fourth quarter 2014 are consistent with previous monitoring events (see Appendix C). The exceptions to this are:

- **MW-3 (Figure C-2):** A PCP concentration of 720 micrograms per liter ($\mu\text{g}/\text{L}$) was detected at MW-3. This well has had consistently low concentrations (ranging from not detected to 130 $\mu\text{g}/\text{L}$) since the fourth quarter 2010. There were no issues with the quality assurance/quality control validation; however, this appears to be an anomalous concentration. It is consistent with concentrations detected prior to 2011. The first quarter 2015 samples will confirm this sample concentration. If it remains elevated, it could be related to the biofouling of the infiltration trench and associated wells reducing its effectiveness. Plans are underway to rehabilitate the system and will be discussed with EPA in March.
- **MW-22 (Figure C-5):** From the first quarter 2012 to the second quarter 2014, the PCP concentration was decreasing from 300 $\mu\text{g}/\text{L}$ to 73 $\mu\text{g}/\text{L}$. While the result from the third quarter 2014 increased to a concentration of 140 $\mu\text{g}/\text{L}$, the fourth quarter 2014 continued the decreasing trend with a result of 120 $\mu\text{g}/\text{L}$.
- **MW-29 (Figure C-9):** In the third quarter data, the concentration was 170 $\mu\text{g}/\text{L}$ which was considerably higher than previously detected in the past several years. In

the Fourth quarter the concentration was 44 ug/L which is more consistent with recent concentrations.

- **MW-41 (Figure C-15):** In the third quarter, PCP was detected at 410 ug/L. PCP has shown an upward trend in this well since 2013. In the fourth quarter the concentration dropped to 350 ug/L which is consistent with more recent concentrations, but still part of a generally upward trend. While it is not certain what this is attributable to, it may be related to a cut-off plume. Options to address this will be discussed with EPA in March.
- **EW-Composite (Figure C-17):** The composite sample from the extraction wells was collected from EQ-2 and EW-4 as the only extraction wells that are currently pumping. The concentration was showing a downward trend after 2013 with a spike in concentration in third quarter 2014 sample (790 ug/L). While the fourth quarter sample showed a decrease in concentration to 590 ug/L, it appears that reduction in pumping from the extraction wells is affecting the concentration.

Several wells (e.g., BSX-1, MW-23, MW-25, MW-28, MW-32, MW-36, MW-39, and MW-40) continued a decreasing trend in PCP concentration for the last several monitoring events. This decrease in concentration could be associated with effectiveness of the recirculation system.

Other wells (e.g., MW-24, MW-34, and MW-41) had fluctuating PCP concentrations, sometime ranging a couple hundred micrograms per liter, over several monitoring events. These fluctuating concentrations in PCP could be associated with seasonal change in groundwater elevation, but also could be associated with the decreased effectiveness of the recirculation system.

The extraction well sample was a laboratory composite of discrete groundwater samples from EW-2 and EW-4 in the fourth quarter 2014 that was analyzed for PCP and select breakdown products. The PCP concentration result for the fourth quarter 2014 was down to 590 $\mu\text{g}/\text{L}$ from 790 $\mu\text{g}/\text{L}$ during the third quarter 2014. The breakdown products 2,4,5-trichlorophenol and 2,4,6-trichlorophenol again were not detected above the respective reporting limits, and the total tetrachlorophenols were 27 $\mu\text{g}/\text{L}$, which is lower than the 31 $\mu\text{g}/\text{L}$ result from the third quarter 2014. The total tetrachlorophenols concentration, much like the PCP concentration, has been fluctuating for the past several monitoring events in the extraction well composite samples.

3.3 Extraction Wells

The only extraction wells operating at the beginning of the fourth quarter in 2014 were EW-2 and EW-4. All of the extraction wells were turned on at the beginning of the fourth quarter 2014, but each extraction well, except EW-2 and EW-4, was triggered almost immediately to shut down because of its high-water-level alarm.

3.4 LNAPL Recovery

The following five wells have sorbent socks to passively absorb LNAPL:

- MW-12
- MW-13
- MW-19
- MW-20
- MW-21

All of the sorbent socks in the recovery wells were inspected on November 17, 2014. Based on visual assessment, only the sorbent sock in MW-12 needed to be replaced. Baxter arranges for the used sorbent socks to be disposed of offsite along with the waste produced by Stella-Jones. An observed trend of less product saturating the sorbent socks in recovery wells MW-13, MW-19, MW-20, and MW-21 than the sorbent sock in MW-12 has been identified since the start of the pilot study (Baxter, 2014).

Based on manufacturer's literature, each sorbent sock is able to absorb 2 pounds of LNAPL. It is calculated that a total of 1.41 pounds of LNAPL were recovered in the fourth quarter 2014 (Table 6). This calculation is based on the laboratory-determined mass of the unused portion of the sorbent sock from MW-12 subtracted from the mass of the saturated portion of the sock.

3.5 Quality Assurance and Quality Control

A laboratory data validation memorandum was compiled by GSI for the samples collected for the fourth quarter 2014 monitoring event (Appendix D). The memorandum is in agreement with the *Sampling and Analysis Data Management Plan from the Site Investigation Work Plan* (Baxter, 2002).

The 33 groundwater samples from the monitoring well network (including 2 duplicate samples), the extraction well laboratory composite sample, and 1 field blank sample were analyzed by ALS. During the data validation process, GSI determined the data were fully usable with the addition of the qualifiers specified in Appendix D, Sections 5.1 and 5.2. No data were rejected during validation.

3.6 Activities Planned for 2015

Quarterly groundwater monitoring events will continue in 2015 as outlined in the PMP. These monitoring events will include the same elements discussed in this O&M report: groundwater level measurements, groundwater sampling within the monitoring network and an extraction well composite sample, and inspection of the sorbent socks in the recovery wells.

The recirculation system (infiltration trench and associated extraction wells and piping) will be rehabilitated in the first half of the year. Additional enhancements will be discussed with EPA to address the downgradient portion of the PCP plume. The sorbent socks will continue to recover LNAPL in the source area.

4. References

- EPA. 1994. Resource Conservation and Recovery Act (RCRA) Corrective Action Plan (Final). OSWER Directive 9902.3-2A. May 1994.
- EPA. 1996. Federal register, Vol. 61, No. 85, May 1, p. 19,432.
- EPA. 2001. Administrative Order of Consent, U.S. EPA, Region 10 Docket No. RCRA-10-2001-0086. U.S. Environmental Protection Agency.
- Baxter. 2002. Site Investigation Work Plan J.H. Baxter Arlington Facility, Revision 2. Prepared by the J.H. Baxter Project Team for EPA Region 10. May 15, 2002.
- Baxter. 2005. Revised Supplemental Dissolved-phase Groundwater Monitoring Plan. Prepared by the J.H. Baxter Team for EPA Region 10. October 25, 2005.
- Baxter. 2007a. Remedial Action Pilot Study Work Plan. Prepared by the J.H. Baxter Project Team for EPA Region 10. September 2007.
- Baxter. 2007b. Remedial Action Pilot Study Performance Monitoring Plan. Prepared by the J.H. Baxter Project Team for EPA Region 10. September 2007.
- Baxter. 2011. Corrective Measures Study, Revision 2. Prepared by the J.H. Baxter Team for EPA Region 10. March 2011.
- Baxter. 2014. Third Quarter 2014 Operations and Monitoring Report – Remedial Action Pilot Study. Prepared by the J.H. Baxter Project Team for EPA Region 10. December 2014.
- EPA. 2001. Administrative Order of Consent, U.S. EPA, Region 10 Docket No. RCRA-10-2001-0086. U.S. Environmental Protection Agency. April 30, 2001.
- EPA. 2010. Email message from Jan Palumbo, U.S. Environmental Protection Agency, to RueAnn Thomas, J. Stephan Barnett, and Gary Dupuy re: "Summary of 6/24/2010 Meeting Agreements." July 19, 2010.

Tables

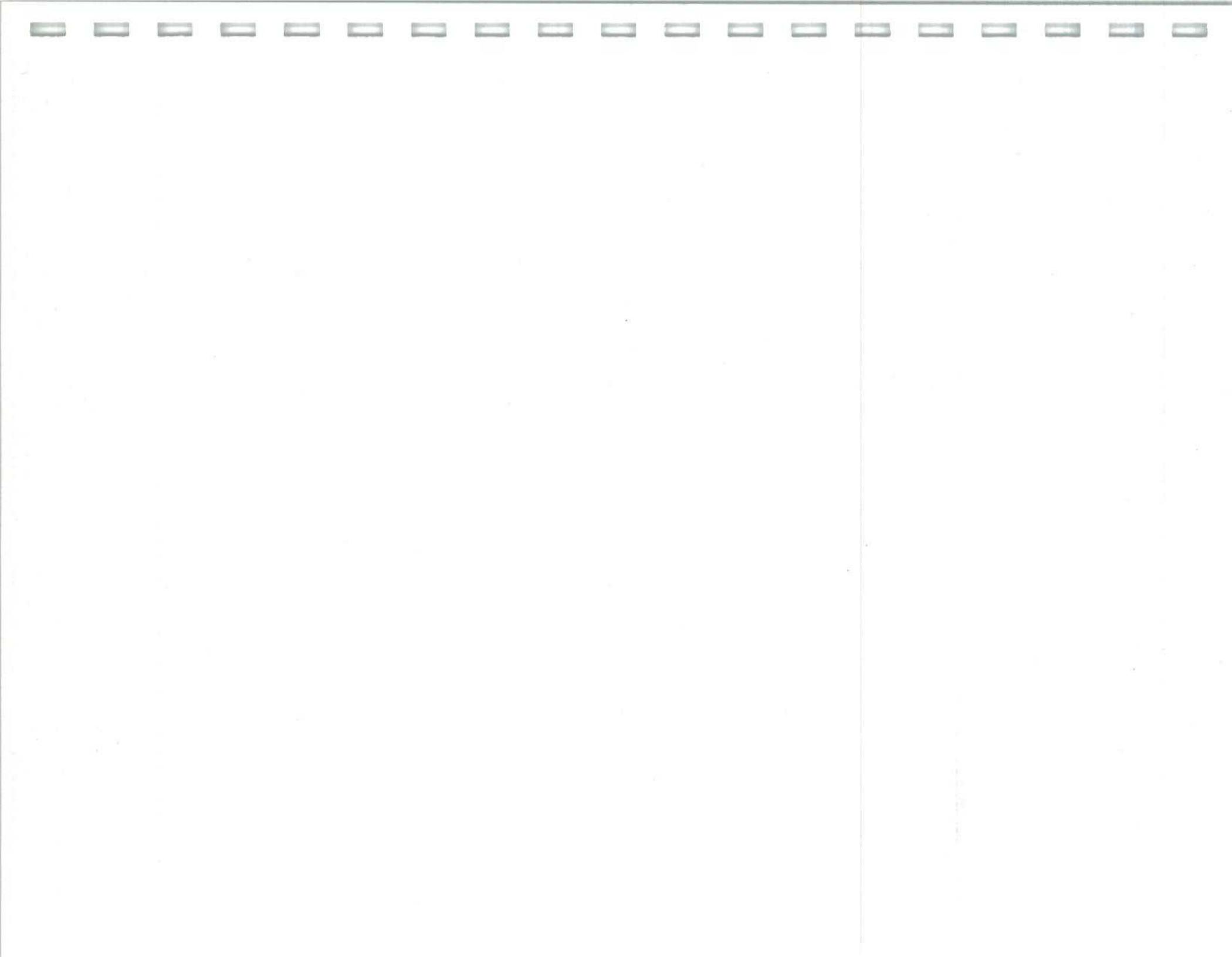


Table 1. Groundwater Elevation Summary

Former J.H. Baxter Wood Treating Facility

Arlington, Washington

Well ID ¹	Northing	Easting	Top of Casing Elevation (ft, NAVD88)	Groundwater Elevations (ft, NAVD88)					
				1/28/2008 ^{2,3}	12/2/2013	3/16/2014	6/2/2014	9/29/2014	11/17/2014
BXS-1	427577	1320372.8	142.65	NM	107.13	108.75	111.2	107.46	107.35
BXS-2	427429.1	1320176.6	142.89	106.63	109.2	120.75	113.09	109.49	109.39
BXS-3	427202.9	1320143.8	142.07	109.82	106.55	114.07	116.36	112.47	113.17
BXS-4	426556.4	1320865.9	143.42	132.1	129.82	131.85	131.16	128.82	131.32
MW-1 ⁴	427352.2	1320826.9	147.44	124.33	120.29	--	--	118.9	123.33
MW-2	428166.9	1320647.4	145.96	103.68	104.99	106.76	109.25	105.36	104.36
MW-3	427560.7	1320596.2	146.13	106.87	107.62	109.57	111.78	107.98	108.03
MW-4 ⁵	425935.6	1321013.3	145.02	135.54	133.77	--	133.31	133.64	134.87
HCMW-5 ⁶	427010.1	1320692.3	143.75	120.42	116.74	--	--	--	--
HCMW-7	428230.4	1320337.6	144.73	102.67	104.08	105.58	108.1	104.42	104.37
MW-10 ⁵	427175.1	1320566	144.99	114.9	113.58	--	118.39	113.06	114.09
MW-11 ⁷	427398.1	1321001	146.06	125.74	122.81	--	--	--	--
MW-14 ⁵	425602.6	1320388.9	141.70	119.98	119.03	--	122.75	118.1	122.20
MW-15	427860	1320310.6	142.22	104.72	106.09	107.69	110.07	106.52	106.32
MW-16	428006.8	1320325.6	142.91	103.91	105.26	106.91	109.3	105.8	109.01
MW-17	427863.6	1320173.9	144.85	104.47	105.88	107.3	109.85	106.3	106.05
MW-18	428312.7	1320075.7	142.45	102.05	103.67	105.05	107.49	104.05	103.95
MW-22	427395.3	1320573.5	142.75	108.72	110.14	112.29	113.9	110.1	110.23
MW-23	427500	1320578.2	143.18	107.5	108.83	110.86	112.83	108.74	108.94
MW-24	427563.9	1320645.1	144.13	107.02	107.73	109.61	111.98	107.98	108.13
MW-25	427492.9	1320682	144.98	109.06	111.35	114.13	115.52	110.48	111.88
MW-26	427601	1320773	144.75	107.48	108	110	112.35	108.27	108.31
MW-27	427677.9	1320702.8	144.31	107.01	107.75	109.57	111.99	108	108.01
MW-28	427502.3	1320488.8	142.77	107.01	108.22	110.72	112.32	108.35	108.56
MW-29	427637.7	1320503	142.61	106.33	107.14	108.91	111.46	107.69	106.53
MW-30	427836.7	1320483.2	142.4	105.47	106.59	107.89	110.72	106.98	106.86
MW-31	427715.8	1320294	140.95	105.23	106.5	108.54	110.46	106.95	106.71
MW-32	427493.5	1320670.2	145.01	107.36	108.01	110.01	112.37	108.35	108.36
MW-33	427577.4	1320602	143.46	106.87	107.69	109.46	111.86	107.94	108.01
MW-34	427647.7	1320498.6	142.6	106.29	107.15	108.87	111.29	107.66	106.49
MW-35	427726.8	1320608.7	143.89	106.36	107.32	109.46	111.42	107.64	107.49
MW-36	427676.1	1320399.4	141.15	105.6	106.84	108.43	110.84	107.35	107.25
MW-37	427969.4	1320251.9	141.96	104.16	105.56	107.02	109.46	105.92	105.16
MW-38	427653.6	1320491.4	143.28	NA	107.12	108.86	111.28	107.58	107.63
MW-39	427993.1	1320148.9	142.85	NA	105.07	106.55	96.94	105.44	105.26
MW-40	427859.5	1320316.6	142.1	NA	105.62	107.1	109.54	105.94	105.86
MW-41	427968.1	1320255	142.21	NA	105.26	106.68	109.2	105.66	105.46
MW-42	428319.7	1320080.9	142.68	NA	103.68	104.93	107.35	103.83	103.8
MW-43	428757.5	1319841.1	141.51	NA	101.01	101.96	104.32	101.25	101.11

Notes

NM = not measured, groundwater below level of dedicated pump.

NA = not applicable; MW-38 through MW-42 were installed in July 2010 and MW-43 was installed in October 2010.

1 Depth to water at HCMW-6 not measured after First Quarter 2013.

2 Baseline measurement.

3 Elevations indicated for MW-23 and MW-37 on 1/28/2008 are raised by 1 foot from values recorded in the field due to suspected error in field records.

4 Depth to water at MW-1 not measured during First Quarter 2014 and Second Quarter 2014.

Table 1. Groundwater Elevation Summary

Former J.H. Baxter Wood Treating Facility

Arlington, Washington

5 Depth to water at MW-4, MW-10, and MW-14 not measured in First Quarter 2014.

6 Depth to water at HCMW-5 not measured in Third Quarter 2013 or after Fourth Quarter 2013.

7 Depth to water at MW-11 not measured after Fourth Quarter 2013.

Table 2. Incremental Change in Groundwater Elevation

Former J.H. Baxter Wood Treating Facility

Arlington, Washington

Well ID ¹	TOC Elevation (ft, NAVD88)	Date	Time	GW Level (ft btoc)	Total Change in GW Level ² (ft)	Incremental Change in GW Level (ft)	GW Elevation (ft, NAVD88)
BXS-1	142.65	1/28/2008 ³	8:41	Below Pump ⁴	--	NM	Below Pump
		12/2/2013	14:20	35.52	--	-2.77	107.13
		3/16/2014	14:09	33.9	--	1.62	108.75
		6/2/2014	15:10	31.45	--	2.45	111.20
		9/29/2014	14:02	35.19	--	-3.74	107.46
		11/17/2014	14:18	35.3	--	-0.11	107.35
BXS-2	142.89	1/28/2008 ³	8:22	36.26	0.00	0.00	106.63
		12/2/2013	15:12	33.69	2.57	2.57	109.20
		3/16/2014	14:05	22.14	14.12	11.55	120.75
		6/2/2014	16:00	29.8	6.46	-7.66	113.09
		9/29/2014	14:54	33.4	2.86	-3.60	109.49
		11/17/2014	14:28	33.5	2.76	-0.10	109.39
BXS-3	142.07	1/28/2008 ³	8:30	32.25	0.00	0.00	109.82
		12/2/2013	15:50	35.52	-3.27	-3.27	106.55
		3/16/2014	14:03	28	4.25	7.52	114.07
		6/2/2014	17:01	25.71	6.54	2.29	116.36
		9/29/2014	15:40	29.6	2.65	-3.89	112.47
		11/17/2014	15:08	28.9	3.35	0.70	113.17
BXS-4	143.42	1/28/2008 ³	11:51	11.32	0.00	0.00	132.10
		12/2/2013	8:05	13.6	-2.28	-2.28	129.82
		3/16/2014	13:57 7	11.57	-0.25	2.03	131.85
		6/2/2014	17:06	12.26	-0.94	-0.69	131.16
		9/29/2014	16:26	14.6	-3.28	-2.34	128.82
		11/17/2014	15:35	12.1	-0.78	2.50	131.32
MW-1 ⁵	147.44	1/28/2008 ³	12:05	23.11	0.00	0.00	124.33
		12/2/2013	14:00	27.15	-4.04	-4.04	120.29
		9/29/2014	16:50	28.54	-5.43	--	118.90
		11/17/2014	16:00	24.11	-1.00	4.43	123.33
MW-2	145.96	1/28/2008 ³	14:23	42.28	0.00	0.00	103.68
		12/2/2013	15:00	40.97	1.31	1.31	104.99
		3/16/2014	--	39.2	3.08	1.77	106.76
		6/2/2014	14:30	36.71	5.57	2.49	109.25
		9/29/2014	14:14	40.6	1.68	-3.89	105.36
		11/16/2014	14:21	41.6	0.68	-1.00	104.36
MW-3	146.13	1/28/2008 ³	10:22	39.26	0.00	0.00	106.87
		12/2/2013	13:10	38.51	0.75	0.75	107.62
		3/16/2014	--	36.56	2.70	1.95	109.57
		6/2/2014	11:45	34.35	4.91	2.21	111.78
		9/29/2014	12:11	38.15	1.11	-3.80	107.98
		11/16/2014	12:14	38.1	1.16	0.05	108.03

Table 2. Incremental Change in Groundwater Elevation

Former J.H. Baxter Wood Treating Facility

Arlington, Washington

Well ID ¹	TOC Elevation (ft, NAVD88)	Date	Time	GW Level (ft btoc)	Total Change in GW Level ² (ft)	Incremental Change in GW Level (ft)	GW Elevation (ft, NAVD88)
MW-4 ⁶	145.02	1/28/2008 ³	11:37	9.48	0.00	0.00	135.54
		12/2/2013	14:12	11.25	-1.77	-1.77	133.77
		6/2/2014	17:10	11.71	-2.23	--	133.31
		9/29/2014	16:57	11.38	-1.90	0.33	133.64
		11/17/2014	16:05	10.15	-0.67	1.23	134.87
HCMW-5 ⁷	143.75	1/28/2008 ³	15:15	23.33	0.00	0.00	120.42
		12/2/2013	14:07	27.01	-3.68	-3.68	116.74
HCMW-7	144.73	1/28/2008 ³	14:19	42.06	0.00	0.00	102.67
		12/2/2013	--	40.65	1.41	1.41	104.08
		3/16/2014	12:38	39.15	2.91	1.50	105.58
		6/2/2014	9:50	36.63	5.43	2.52	108.10
		9/29/2014	10:00	40.31	1.75	-3.68	104.42
		11/17/2014	9:28	40.36	1.70	-0.05	104.37
MW-10 ⁶	144.99	1/28/2008 ³	12:15	30.09	0.00	0.00	114.90
		12/2/2013	14:19	31.41	-1.32	-1.32	113.58
		6/2/2014	17:19	26.6	3.49	--	118.39
		9/29/2014	15:04	31.93	-1.84	-5.33	113.06
		11/17/2014	16:11	30.9	-0.81	1.03	114.09
MW-11 ⁸	146.06	1/28/2008 ³	11:59	20.32	0.00	0.00	125.74
		12/2/2013	14:04	23.25	-2.93	-2.93	122.81
MW-14 ⁶	141.70	1/28/2008 ³	11:45	21.72	0.00	0.00	119.98
		12/2/2013	14:15	22.67	-0.95	-0.95	119.03
		6/2/2014	17:13	18.95	2.77	--	122.75
		9/29/2014	17:00	23.6	-1.88	-4.65	118.10
		11/17/2014	16:07	19.50	2.22	4.10	122.20
MW-15	142.22	1/28/2008 ³	13:47	37.5	0.00	0.00	104.72
		12/2/2013	14:45	36.13	1.37	1.37	106.09
		3/16/2014	12:52	34.53	2.97	1.60	107.69
		6/2/2014	10:20	32.15	5.35	2.38	110.07
		9/29/2014	9:43	35.7	1.80	-3.55	106.52
		11/17/2014	10:30	35.9	1.60	-0.20	106.32
MW-16	142.91	1/28/2008 ³	13:57	39	0.00	0.00	103.91
		12/2/2013	11:52	37.65	1.35	1.35	105.26
		3/16/2014	12:35	36	3.00	1.65	106.91
		6/2/2014	17:41	33.61	5.39	2.39	109.30
		9/29/2014	15:40	37.11	1.89	-3.50	105.80
		11/17/2014	8:23	33.9	5.10	3.21	109.01
MW-17	144.85	1/28/2008 ³	13:52	40.38	0.00	0.00	104.47
		12/2/2013	9:50	38.97	1.41	1.41	105.88
		3/16/2014	14:07	37.55	2.83	1.42	107.30
		6/2/2014	16:37	35	5.38	2.55	109.85
		9/29/2014	16:28	38.55	1.83	-3.55	106.30
		11/17/2014	9:51	38.8	1.58	-0.25	106.05

Table 2. Incremental Change in Groundwater Elevation

Former J.H. Baxter Wood Treating Facility

Arlington, Washington

Well ID ¹	TOC Elevation (ft, NAVD88)	Date	Time	GW Level (ft btoc)	Total Change in GW Level ² (ft)	Incremental Change in GW Level (ft)	GW Elevation (ft, NAVD88)
MW-18	142.45	1/28/2008 ³	14:14	40.4	0.00	0.00	102.05
		12/2/2013	7:48	38.78	1.62	1.62	103.67
		3/16/2014	7:43 8	37.4	3.00	1.38	105.05
		6/2/2014	7:53	34.96	5.44	2.44	107.49
		9/29/2014	7:54	38.4	2.00	-3.44	104.05
		11/17/2014	7:40	38.5	1.90	-0.10	103.95
MW-22	142.75	1/28/2008 ³	10:10	34.03	0.00	0.00	108.72
		12/2/2013	13:46	32.61	1.42	1.42	110.14
		3/16/2014	--	30.46	3.57	2.15	112.29
		6/2/2014	11:42	28.85	5.18	1.61	113.90
		9/29/2014	12:05	32.65	1.38	-3.80	110.10
		11/16/2014	12:18	32.52	1.51	0.13	110.23
MW-23	143.18	1/28/2008 ^{3,9}	10:02	35.68	0.00	0.00	107.50
		12/2/2013	13:07	34.35	1.33	1.33	108.83
		3/16/2014	13:10	32.32	3.36	2.03	110.86
		6/2/2014	12:16	30.35	5.33	1.97	112.83
		9/29/2014	12:33	34.44	1.24	-4.09	108.74
		11/16/2014	12:38	34.24	1.44	0.20	108.94
MW-24	144.13	1/28/2008 ³	10:25	37.11	0.00	0.00	107.02
		12/2/2013	13:20	36.4	0.71	0.71	107.73
		3/16/2014	13:30	34.52	2.59	1.88	109.61
		6/2/2014	14:20	32.15	4.96	2.37	111.98
		9/29/2014	15:04	36.15	0.96	-4.00	107.98
		11/16/2014	14:43	36.00	1.11	0.15	108.13
MW-25	144.98	1/28/2008 ³	10:28	35.92	0.00	0.00	109.06
		12/2/2013	13:35	33.63	2.29	2.29	111.35
		3/16/2014	13:34	30.85	5.07	2.78	114.13
		6/2/2014	13:09	29.46	6.46	1.39	115.52
		9/29/2014	13:30	34.5	1.42	-5.04	110.48
		11/16/2014	13:43	33.1	2.82	1.40	111.88
MW-26	144.75	1/28/2008 ³	10:54	37.27	0.00	0.00	107.48
		12/2/2013	13:33	36.75	0.52	0.52	108.00
		3/16/2014	16:08	34.75	2.52	2.00	110.00
		6/2/2014	13:35	32.4	4.87	2.35	112.35
		9/29/2014	14:00	36.48	0.79	-4.08	108.27
		11/16/2014	14:03	36.44	0.83	0.04	108.31
MW-27	144.31	1/28/2008 ³	10:41	37.3	0.00	0.00	107.01
		12/2/2013	13:29	36.56	0.74	0.74	0.00
		3/16/2014	13:40	34.74	2.56	1.82	0.00
		6/2/2014	14:02	32.32	4.98	2.42	0.00
		9/29/2014	14:27	36.31	0.99	-3.99	0.00
		11/16/2014	14:23	36.3	1.00	0.01	0.00

Table 2. Incremental Change in Groundwater Elevation

Former J.H. Baxter Wood Treating Facility

Arlington, Washington

Well ID ¹	TOC Elevation (ft, NAVD88)	Date	Time	GW Level (ft btoc)	Total Change in GW Level ² (ft)	Incremental Change in GW Level (ft)	GW Elevation (ft, NAVD88)
MW-28	142.77	1/28/2008 ³	9:47	35.76	0.00	0.00	107.01
		12/2/2013	13:42	34.55	1.21	1.21	108.22
		3/16/2014	14:11	32.05	3.71	2.50	110.72
		6/2/2014	16:06	30.45	5.31	1.60	112.32
		9/29/2014	12:05	34.42	1.34	-3.97	108.35
		11/17/2014	13:35	34.21	1.55	0.21	108.56
MW-29	142.61	1/28/2008 ³	14:46	36.28	0.00	0.00	106.33
		12/2/2013	13:05	35.47	0.81	0.81	107.14
		3/16/2014	13:11	33.7	2.58	1.77	108.91
		6/2/2014	16:50	31.15	5.13	2.55	111.46
		9/29/2014	16:12	34.92	1.36	-3.77	107.69
		11/16/2014	15:28	36.08	0.20	-1.16	106.53
MW-30	142.40	1/28/2008 ³	13:28	36.93	0.00	0.00	105.47
		12/2/2013	12:55	35.81	1.12	1.12	106.59
		3/16/2014	13:05	34.51	2.42	1.30	107.89
		6/2/2014	10:08	31.68	5.25	2.83	110.72
		9/29/2014	17:35	35.42	1.51	-3.74	106.98
		11/17/2014	13:15	35.54	1.39	-0.12	106.86
MW-31	140.95	1/28/2008 ³	13:42	35.72	0.00	0.00	105.23
		12/2/2013	12:52	34.45	1.27	1.27	106.50
		3/16/2014	--	32.41	3.31	2.04	108.54
		6/2/2014	18:06	30.49	5.23	1.92	110.46
		9/29/2014	18:00	34	1.72	-3.51	106.95
		11/16/2014	16:43	34.24	1.48	-0.24	106.71
MW-32	145.01	1/28/2008 ³	10:32	37.65	0.00	0.00	107.36
		12/2/2013	13:42	37	0.65	0.65	108.01
		3/16/2014	13:33	35	2.65	2.00	110.01
		6/2/2014	12:43	32.64	5.01	2.36	112.37
		9/29/2014	12:58	36.66	0.99	-4.02	108.35
		11/16/2014	13:08	36.65	1.00	0.01	108.36
MW-33	143.46	1/28/2008 ³	10:17	36.59	0.00	0.00	106.87
		12/2/2013	13:12	35.77	0.82	0.82	107.69
		3/16/2014	13:18	34	2.59	1.77	109.46
		6/2/2014	16:28	31.6	4.99	2.40	111.86
		9/29/2014	15:35	35.52	1.07	-3.92	107.94
		11/16/2014	15:03	35.45	1.14	0.07	108.01
MW-34	142.60	1/28/2008 ³	14:51	36.31	0.00	0.00	106.29
		12/2/2013	13:02	35.45	0.86	0.86	107.15
		3/16/2014	13:10	33.73	2.58	1.72	108.87
		6/2/2014	17:08	31.31	5.00	2.42	111.29
		9/29/2014	16:35	34.94	1.37	-3.63	107.66
		11/16/2014	15:48	36.11	0.20	-1.17	106.49

Table 2. Incremental Change in Groundwater Elevation

Former J.H. Baxter Wood Treating Facility

Arlington, Washington

Well ID ¹	TOC Elevation (ft, NAVD88)	Date	Time	GW Level (ft btoc)	Total Change in GW Level ² (ft)	Incremental Change in GW Level (ft)	GW Elevation (ft, NAVD88)
MW-35	143.89	1/28/2008 ³	11:12	37.53	0.00	0.00	106.36
		12/2/2013	13:23	36.57	0.96	0.96	107.32
		3/16/2014	13:25	34.43	3.10	2.14	109.46
		6/2/2014	13:23	32.47	5.06	1.96	111.42
		9/29/2014	13:10	36.25	1.28	-3.78	107.64
		11/16/2014	13:38	36.4	1.13	-0.15	107.49
MW-36	141.15	1/28/2008 ³	13:41	35.55	0.00	0.00	105.60
		12/2/2013	12:15	34.31	1.24	1.24	106.84
		3/16/2014	--	32.72	2.83	1.59	108.43
		6/2/2014	11:50	30.31	5.24	2.41	110.84
		9/29/2014	10:42	33.8	1.75	-3.49	107.35
		11/17/2014	11:23	33.9	1.65	-0.10	107.25
MW-37	141.96	1/28/2008 ^{3,9}	14:05	37.80	0.00	0.00	104.16
		12/2/2013	11:00	36.4	1.40	1.40	105.56
		3/16/2014	12:15	34.94	2.86	1.46	107.02
		6/2/2014	9:07	32.5	5.30	2.44	109.46
		9/29/2014	8:50	36.04	1.76	-3.54	105.92
		11/17/2014	9:03	36.8	1.00	-0.76	105.16
MW-38	143.28	12/2/2013	12:58	36.16	--	0.00	107.12
		3/16/2014	13:07	34.42	--	1.74	108.86
		6/2/2014	17:35	32	--	2.42	111.28
		9/29/2014	17:00	35.7	--	-3.70	107.58
		11/16/2014	16:13	36.65	--	-0.95	106.63
MW-39	142.85	12/2/2013	10:08	37.78	--	0.00	105.07
		3/16/2014	12:54	36.3	--	1.48	106.55
		6/2/2014	9:30	45.91	--	-9.61	96.94
		9/29/2014	10:30	37.41	--	8.50	105.44
		11/17/2014	9:48	37.59	--	-0.18	105.26
MW-40	142.10	12/2/2013	12:50	36.48	--	0.00	105.62
		3/16/2014	12:25	35	--	1.48	107.10
		6/2/2014	18:25	32.56	--	2.44	109.54
		9/29/2014	11:30	36.16	--	-3.60	105.94
		11/17/2014	12:41	36.24	--	-0.08	105.86
MW-41	142.21	12/2/2013	12:15	36.95	--	0.00	105.26
		3/16/2014	12:23	35.53	--	1.42	106.68
		6/2/2014	10:30	33.01	--	2.52	109.20
		9/29/2014	12:40	36.55	--	-3.54	105.66
		11/17/2014	10:38	36.75	--	-0.20	105.46
MW-42	142.68	12/2/2013	7:48	39	--	0.00	103.68
		3/16/2014	7:40	37.75	--	1.25	104.93
		6/2/2014	8:00	35.33	--	2.42	107.35
		9/29/2014	7:45	38.85	--	-3.52	103.83
		11/17/2014	7:38	38.88	--	-0.03	103.80

Table 2. Incremental Change in Groundwater Elevation

Former J.H. Baxter Wood Treating Facility
Arlington, Washington

Well ID ¹	TOC Elevation (ft, NAVD88)	Date	Time	GW Level (ft btoc)	Total Change in GW Level ² (ft)	Incremental Change in GW Level (ft)	GW Elevation (ft, NAVD88)
MW-43	141.51	12/2/2013	8:38	40.5	--	0.00	101.01
		3/16/2014	8:27 8	39.55	--	0.95	101.96
		6/2/2014	8:55	37.19	--	2.36	104.32
		9/29/2014	8:50	40.26	--	-3.07	101.25
		11/17/2014	8:33	40.40	--	-0.14	101.11

Notes

btoc = below top of casing

ft = feet

GW = groundwater

1 Depth to water at HCMW-6 not measured after First Quarter 2013.

2 No baseline measurement from 1/28/2008 available; BXS-1 groundwater level below dedicated pump, MW-38 through MW-42 were installed in July 2010, and MW-43 was installed in October 2010.

3 Baseline measurement.

4 BXS-1 pump depth is 36.9 feet, NAVD88.

5 Depth to water at MW-1 not measured during First Quarter 2014 and Second Quarter 2014.

6 Depth to water at MW-4, MW-10, and MW-14 not measured in First Quarter 2014.

7 Depth to water at HCMW-5 not measured in Third Quarter 2013 or after Fourth Quarter 2013.

8 Depth to water at MW-11 not measured after Fourth Quarter 2013.

9 Elevations indicated for MW-23 and MW-37 on 1/28/2008 are raised by 1 foot from values recorded in the field due to suspected error in field recording.

Table 3. Vertical Groundwater Gradients at Monitoring Well Pairs

Former J.H. Baxter Wood Treating Facility
Arlington, Washington

Vertical Groundwater Gradient ^{1,2}	Well Pair	12/2/2013	3/16/2014	6/2/2014	9/29/2014	11/17/2014
Shallow to Intermediate Zone	MW-25/MW-32	0.23	0.2807	0.2146	0.1451	0.2398
	MW-3/MW-33	-0.0045	0.007	-0.0051	0.0025	0.0013
	MW-29/MW-34	-0.0007	0.0026	0.0112	0.002	0.0023
Shallow to Deep Zone	MW-29/MW-38	0.0006	0.0015	0.0052	0.0032	-0.0299
	MW-15/MW-40	0.012	0.0156	0.0141	0.0154	0.0123
Intermediate to Deep Zone	MW-37/MW-41	0.012	0.0136	0.0104	0.0104	-0.0124

Notes

1 Vertical groundwater gradients are dimensionless.

2 Gradients are calculated by shallower aquifer groundwater elevation minus deeper aquifer groundwater elevation divided by the distance between well screen midpoints. Positive values indicate a downward flow direction, while negative values indicate an upward flow direction.

Table 4A. Summary of Groundwater Sampling Analytical Results: 2008 through Fourth Quarter 2014

Former J.H. Baxter Wood Treating Facility

Arlington, Washington

Table 4A. Summary of Groundwater Sampling Analytical Results: 2008 through Fourth Quarter 2014

Former J.H. Baxter Wood Treating Facility
Arlington, Washington

Event	Well ID	Sample ID	Sample Date	Pentachlorophenol	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benz[a]anthracene	Benz[a]pyrene	Benz[b]fluoranthene	Benz[g,h,i]perylene	Benz[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Naphthalene	Phenanthrene	Pyrene	Total PAHs (calculated)	
				(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	
2013_06SIPMP	BXS-2	BXS-2	6/4/2013	0.5 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.029	0.019 U	0.019 U	0.029	
2013_08SIPMP	BXS-2	BXS-2	8/27/2013	0.16 U	0.0073 U	0.0067 U	0.01 J	0.0036 U	0.0026 U	0.0043 U	0.0041 U	0.0029 U	0.003 U	0.0034 U	0.0025 U	0.01 U	0.0049 U	0.0026 U	0.15	0.005 U	0.0079 J	0.1679	
2013_12SIPMP	BXS-2	BXS-2	12/2/2013	0.5 U	0.0042 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.057 U	0.019 U	0.019 U	ND	
2014_03SIPMP	BXS-2	BXS-2	3/17/2014	0.5 U	0.0094 U	0.01 J	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.025 U	0.02 U	0.02 U	0.01	
2014_06SIPMP	BXS-2	BXS-2	6/2/2014	0.5 U	0.02 U	0.02 U	0.0093 J	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.044 U	0.02 U	0.02 U	0.0093	
2014_09SIPMP	BXS-2	BXS-2	9/29/2014	0.5 U	0.02 U	0.02 U	0.011 J	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 J	0.02 U	0.02 U	0.031	
2014_11SIPMP	BXS-2	BXS-2	11/17/2014	0.5 U	0.019 U	0.0059 NJ	0.019 U	0.0074 J	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.045 U	0.019 U	0.019 U	0.0133	
2012_05SIPMP	BXS-3	BXS-3	5/2/2012	0.5 U	0.0029 J	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.044	0.019 U	0.019 U	0.0469	
2012_05SIPMP	BXS-4	BXS-4	5/2/2012	0.5 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.034	0.019 U	0.019 U	0.034	
2008_01	EW1-EW7	0130-COMP	1/30/2008	130																			
2008_03	EW1-EW7	EW1-7 COMP	2/27/2008	270																			
2008_SI	EW1-EW7	EW 1-7 Comp.	4/29/2008	240																			
2008_SI	EW1-EW7	Extra Well 1-7	7/29/2008	230																			
2008_SI	EW1-EW7	EW 1-7	10/22/2008	170																			
2009_SI	EW1-EW7	EW 1-7	2/11/2009	210																			
2009_SI	EW1-EW7	EW 1-7	5/7/2009	210																			
2008_01	MW-2	MW-2	1/8/2008	0.0091 J	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.006 J	0.005 U	0.0035 U	0.0151		
2008_SI	MW-2	MW-2	4/29/2008	0.08 U	0.02 U	0.0044 U	0.0034 U	0.0036 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.02 U	0.005 U	0.0035 U	ND		
2008_SI	MW-2	MW-2	7/29/2008	0.08 U	0.019 U	0.0044 U	0.0034 U	0.0036 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.019 U	0.005 U	0.0035 U	ND		
2008_SI	MW-2	MW-2	10/21/2008	0.08 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0048 J	0.0038 U	0.0026 U	0.019 U	0.0035 U	0.0048			
2009_SI	MW-2	MW-2	2/10/2009	0.16 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.003 U	0.005 U	0.0035 U	ND	
2009_SI	MW-2	MW-2	5/5/2009	0.16 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.02 U	0.005 U	0.0035 U	ND		
2009_SI	MW-2	MW-2	8/4/2009	0.16 U	0.019 U	0.0044 U	0.0034 U	0.0036 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.019 U	0.005 U	0.0035 U	ND		
2009_SI	MW-2	MW-2	11/17/2009	0.16 U	0.02 U	0.0044 U	0.0034 U	0.0036 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.072 U	0.005 U	0.0035 U	ND		
2010_02SIPMP	MW-2	MW-2	2/9/2010	0.16 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.047	0.005 U	0.0035 U	0.047		
2010_05SIPMP	MW-2	MW-2	5/25/2010	0.07 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.036 U	0.005 U	0.0035 U	ND		
2010_08SIPMP	MW-2	MW-2	8/17/2010	0.07 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.003 U	0.005 U	0.0035 U	ND		
2010_11SIPMP	MW-2	MW-2	11/17/2010	0.07 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.036 U	0.005 U	0.0035 U	ND		
2011_02SIPMP	MW-2	MW-2	2/8/2011	0.07 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.02 U	0.005 U	0.0035 U	ND		
2011_05SIPMP	MW-2	MW-2	5/16/2011	0.07 U	0.0023 U																		

Table 4A. Summary of Groundwater Sampling Analytical Results: 2008 through Fourth Quarter 2014

Former J.H. Baxter Wood Treating Facility

Arlington, Washington

Table 4A. Summary of Groundwater Sampling Analytical Results: 2008 through Fourth Quarter 2014

Former J.H. Baxter Wood Treating Facility

Arlington, Washington

Event	Well ID	Sample ID	Sample Date	Pentachlorophenol	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benz(a)pyrene	Benz(b)fluoranthene	Benz(g,h,i)perylene	Benz(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Total PAHs (calculated)	
				(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	
2012_08SIPMP	MW-15	MW-15	8/19/2012	0.49 J	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.091	0.02 U	0.02 U	0.02 U	0.091	
2012_11SIPMP	MW-15	MW-15	11/11/2012	0.5 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.0058 U	0.019 U	0.019 U	0.019 U	ND	
2013_02SIPMP	MW-15	MW-15	2/11/2013	0.5 U	0.019 U	0.019 U	0.019 U	0.019 U	0.0038 J	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.012 J	0.019 U	0.019 U	0.019 U	0.0158	
2013_06SIPMP	MW-15	MW-15	6/3/2013	0.63	0.0027 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.04 U	0.02 U	0.02 U	0.02 U	ND
2013_08SIPMP	MW-15	MW-15	8/26/2013	0.51 N	0.0023 U	0.0044 U	0.0034 U	0.004 U	0.0026 U	0.0043 U	0.0041 U	0.0029 U	0.003 U	0.0034 U	0.0025 U	0.01 U	0.0038 U	0.0026 U	0.061	0.005 U	0.0053 U	0.061	
2013_12SIPMP	MW-15	MW-15	12/2/2013	0.5 U	0.0045 U	0.019 U	0.019 U	0.019 U	0.0077 J	0.0042 U	0.019 U	0.0051 J	0.019 U	0.004 J	0.019 U	0.019 U	0.019 U	0.019 U	0.073 U	0.009 U	0.019 U	0.019 U	0.0168
2014_03SIPMP	MW-15	MW-15	3/17/2014	1.3 U	U	0.019 U	0.019 U	0.019 U	0.0051 J	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.024 U	0.019 U	0.019 U	0.019 U	ND
2014_06SIPMP	MW-15	MW-15	6/2/2014	3.1	0.019	0.019	0.019	0.019	0.0051 J	0.019	0.019	0.019	0.019	0.019	0.019	0.019	0.019	0.019	0.036 U	0.019 U	0.019 U	0.0051	
2014_09SIPMP	MW-15	MW-15	9/29/2014	0.5 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.02	0.019 U	0.019 U	0.019 U	0.02	
2014_11SIPMP	MW-15	MW-15	11/17/2014	0.5 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	ND
2008_01	MW-16	MW-16	1/8/2008	0.08 U	0.0029 J	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.0043 J	0.005 U	0.0035 U	0.0072	
2008_SI	MW-16	MW-16	4/29/2008	0.08 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.019 U	0.005 U	0.0035 U	ND	
2008_SI	MW-16	MW-16	7/29/2008	0.08 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.02 U	0.005 U	0.0035 U	ND	
2008_SI	MW-16	MW-16	10/20/2008	7.3	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.019	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.0041 J	0.0067 J	0.0035 U	0.0108	
2009_SI	MW-16	MW-16	2/10/2009	0.16 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.003 U	0.005 U	0.0035 U	ND	
2009_SI	MW-16	MW-16	5/4/2009	0.16 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.02 U	0.005 U	0.0035 U	ND	
2009_SI	MW-16	MW-16	8/4/2009	0.16 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.003 U	0.005 U	0.0035 U	ND	
2009_SI	MW-16	MW-16	11/16/2009	0.16 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.091 U	0.005 U	0.0035 U	ND	
2010_02SIPMP	MW-16	MW-16	2/8/2010	0.16 U	0.02 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.043	0.005 U	0.0035 U	0.043	
2010_05SIPMP	MW-16	MW-16	5/24/2010	0.07 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.02	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.036	0.005 U	0.0035 U	0.036	
2010_08SIPMP	MW-16	MW-16	8/17/2010	0.07 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.019 J	0.005 U	0.0035 U	0.019	
2010_11SIPMP	MW-16	MW-16	11/16/2010	0.07 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.025 U	0.005 U	0.0035 U	ND	
2011_02SIPMP	MW-16	MW-16	2/7/2011	0.07 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.021 U	0.005 U	0.0035 U	ND	
2011_05SIPMP	MW-16	MW-16	5/16/2011	0.07 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.02 U	0.005 U	0.0035 U	ND	
2011_08SIPMP	MW-16	MW-16	8/23/2011	0.07 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U						

Table 4A. Summary of Groundwater Sampling Analytical Results: 2008 through Fourth Quarter 2014

Former J.H. Baxter Wood Treating Facility

Arlington, Washington

Event	Well ID	Sample ID	Sample Date	Pentachlorophenol	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benz(a)pyrene	Benz(b)fluoranthene	Benz(g,h,i)perylene	Benz(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Total PAHs (calculated)	
				(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	
2013_06SIPMP	MW-17	MW-17	6/3/2013		0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	ND	
2013_08SIPMP	MW-17	MW-17	8/26/2013	0.16 U	0.0027 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0041 U	0.0029 U	0.003 U	0.0034 U	0.0025 U	0.01 U	0.0038 U	0.0026 U	0.12	0.005 U	0.0053 U	0.12
2013_12SIPMP	MW-17	MW-17	12/2/2013	0.5 U	0.019 U	0.019 U	0.019 U	0.019 U	0.0033 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.05 U	0.0057 U	0.019 U	ND	
2014_03SIPMP	MW-17	MW-17	3/17/2014	0.5 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.012 U	0.019 U	0.019 U	ND
2014_06SIPMP	MW-17	MW-17	6/1/2014	0.5 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.044	0.019 U	0.019 U	0.044
2014_09SIPMP	MW-17	MW-17	9/28/2014	0.5 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.021	0.02 U	0.02 U	0.021
2014_11SIPMP	MW-17	MW-17	11/17/2014	0.5 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	ND
2008_01	MW-18	MW-18	1/7/2008	0.08 U	0.0023 U	0.0049 J	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.0035 J	0.005 U	0.0035 U	0.0084
2008_SI	MW-18	MW-18	4/28/2008	0.08 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.019 U	0.005 U	0.0035 U	ND
2008_SI	MW-18	MW-18	7/28/2008	0.08 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.003 U	0.005 U	0.0035 U	ND
2008_SI	MW-18	MW-18	10/20/2008	0.08 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.0033 J	0.005 U	0.0035 U	0.0033
2009_SI	MW-18	MW-18	2/10/2009	0.16 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.003 U	0.005 U	0.0035 U	ND
2009_SI	MW-18	MW-18	5/4/2009	0.16 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.019 U	0.005 U	0.0035 U	ND
2009_SI	MW-18	MW-18	8/3/2009	0.16 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.019 U	0.005 U	0.0035 U	ND
2009_SI	MW-18	MW-18	11/18/2009	0.16 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.085 U	0.005 U	0.0035 U	ND
2010_02SIPMP	MW-18	MW-18	2/8/2010	0.16 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0071 U	0.0038 U	0.0026 U	0.02 U	0.005 U	0.0035 U	ND
2010_05SIPMP	MW-18	MW-18	5/24/2010	0.07 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.019 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.034	0.005 U	0.0035 U	0.034
2010_08SIPMP	MW-18	MW-18	8/16/2010	0.07 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.003 U	0.005 U	0.0035 U	ND
2010_11SIPMP	MW-18	MW-18	11/15/2010	0.07 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.02 U	0.005 U	0.0035 U	ND
2011_02SIPMP	MW-18	MW-18	2/7/2011	0.07 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.02 U	0.005 U	0.0035 U	ND
2011_05SIPMP	MW-18	MW-18	5/16/2011	0.07 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.031 U	0.005 U	0.0035 U	ND
2011_08SIPMP	MW-18	MW-18	8/23/2011	0.07 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.02 U	0.005 U	0.0035 U	ND
2011_11SIPMP	MW-18	MW-18	11/2/2011	0.07 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.047 U	0.005 U	0.0035 U	ND
2012_02SIPMP	MW-18	MW-18	2/13/2012	0.2 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 J	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.024	0.02 U	0.044
2012_05SIPMP	MW-18	MW-18	5/1/2012	0.5 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.13	0.019 U	0.019 U	0.13
2012_08SIPMP	MW-18	MW-18	8																			

Table 4A. Summary of Groundwater Sampling Analytical Results: 2008 through Fourth Quarter 2014

Former J.H. Baxter Wood Treating Facility

Arlington, Washington

Table 4A. Summary of Groundwater Sampling Analytical Results: 2008 through Fourth Quarter 2014

Former J.H. Baxter Wood Treating Facility

Arlington, Washington

Event	Well ID	Sample ID	Sample Date	Pentachlorophenol	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benz[a]anthracene	Benz[a]pyrene	Benz[b]fluoranthene	Benz[g,h,i]perylene	Benz[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Naphthalene	Phenanthrene	Pyrene	Total PAHs (calculated)	
				(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	
2013_06SIPMP	MW-28	MW-28	6/3/2013	34																			
2013_08SIPMP	MW-28	MW-28	8/26/2013	21																			
2013_12SIPMP	MW-28	MW-28	12/2/2013	85																			
2014_03SIPMP	MW-28	MW-28	3/17/2014	57																			
2014_06SIPMP	MW-28	MW-28	6/2/2014	65																			
2014_09SIPMP	MW-28	MW-28	9/29/2014	13																			
2014_11SIPMP	MW-28	MW-28	11/17/2014	2.2																			
2008_01	MW-29	MW-29	1/10/2008	1,600																			
2008_03	MW-29	MW-29	2/26/2008	730																			
2008_SI	MW-29	MW-29	4/28/2008	0.08 U																			
2008_SI	MW-29	MW-29	7/28/2008	0.08 U																			
2008_SI	MW-29	MW-29	10/20/2008	7.5																			
2009_SI	MW-29	MW-29	2/11/2009	0.16 U																			
2009_SI	MW-29	MW-29	5/5/2009	0.16 U																			
2009_SI	MW-29	MW-29	8/4/2009	0.16 U																			
2009_SI	MW-29	MW-29	11/17/2009	0.16 U																			
2010_02SIPMP	MW-29	MW-29	2/9/2010	0.16 U																			
2010_05SIPMP	MW-29	MW-29	5/24/2010	0.07 U																			
2010_08SIPMP	MW-29	MW-29	8/17/2010	0.099 J																			
2010_11SIPMP	MW-29	MW-29	11/17/2010	0.087 J																			
2011_02SIPMP	MW-29	MW-29	2/8/2011	0.07 U																			
2011_05SIPMP	MW-29	MW-29	5/17/2011	0.12 J																			
2011_08SIPMP	MW-29	MW-29	8/23/2011	0.11 J																			
2011_11SIPMP	MW-29	MW-29	11/2/2011	0.23 J																			
2012_02SIPMP	MW-29	MW-29	2/13/2012	0.32																			
2012_05SIPMP	MW-29	MW-29	4/30/2012	0.5 U																			
2012_08SIPMP	MW-29	MW-29	8/20/2012	0.22 J																			
2012_11SIPMP	MW-29	MW-29	11/12/2012	2																			
2013_02SIPMP	MW-29	MW-29	2/11/2013	16 J																			
2013_06SIPMP	MW-29	MW-29	6/3/2013	1.6																			
2013_08SIPMP	MW-29	MW-29	8/26/2013	41																			
2013_12SIPMP	MW-29	MW-29	12/2/2013	99																			
2014_03SIPMP	MW-29	MW-29	3/17/2014	0.5 U																			
2014_06SIPMP	MW-29	MW-29	6/1/2014	0.49 J																			
2014_09SIPMP	MW-29	MW-29	9/28/2014	170																			
2014_11SIPMP	MW-29	MW-29	11/16/2014	44																			
2008_01	MW-30	MW-30	1/10/2008	0.08 U																			
2008_03	MW-30	MW-30	2/26/2008	0.18 J																			
2008_SI	MW-30	MW-30	4/28/2008	0.08 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.019 U	0.005 U	0.0035 U	ND	
2008_SI	MW-30	MW-30	7/28/2008	0.08 U	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.019 U	0.005 U	0.007 J	0.007	
2008_SI	MW-30	MW-30	10/21/2008	0.08 U	0.019 U	0.0086 J	0.0034 U	0.0036 U	0.0034 J	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 J	0.019 U	0.0026 U	0.026 U	0.024 U	0.0042 J	0.0206	
2009_SI	MW-30	MW-30	2/11/2009	0.16 U	0.019 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.019 U	0.005 U	0.0035 U	ND	
2009_SI	MW-30	MW-30	5/4/2009	0.16 U	0.019 U	0.0044 U	0.0034 U	0.0036 U	0.0028 J	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0044 J	0.0026 U	0.05 U	0.0054 J	0.0035 U	0.0126	
2009_SI	MW-30	MW-30	8/3/2009	0.16 U	0.019 U	0.0044 U</td																	

Table 4A. Summary of Groundwater Sampling Analytical Results: 2008 through Fourth Quarter 2014

Former J.H. Baxter Wood Treating Facility

Arlington, Washington

Table 4A. Summary of Groundwater Sampling Analytical Results: 2008 through Fourth Quarter 2014

Former J.H. Baxter Wood Treating Facility

Arlington, Washington

Table 4A. Summary of Groundwater Sampling Analytical Results: 2008 through Fourth Quarter 2014

Former J.H. Baxter Wood Treating Facility

Arlington, Washington

Table 4A. Summary of Groundwater Sampling Analytical Results: 2008 through Fourth Quarter 2014

Former J.H. Baxter Wood Treating Facility

Arlington, Washington

Event	Well ID	Sample ID	Sample Date	Pentachlorophenol	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Total PAHs (calculated)	
				(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	
2014_03SIPMP	MW-36	MW-36	3/16/2014	150	0.0034 J	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.029	0.019 U	0.019 U	0.0324	
2014_06SIPMP	MW-36	MW-36	6/2/2014	130	0.019 U	0.019 U	0.019 U	0.011 J	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019	0.019 U	0.019 U	0.03	
2014_09SIPMP	MW-36	MW-36	9/29/2014	120	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.016 J	0.019 U	0.019 U	0.016	
2014_11SIPMP	MW-36	MW-36	11/17/2014	120	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.0045 J	0.0038 J	0.0045 J	0.0042 J	0.019 U	0.019 U	0.0048 NJ	0.019 U	0.019 U	0.019 U	0.0218	
2008_01	MW-37	MW-37	1/8/2008	770	0.011 J	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.37	0.005 U	0.0035 U	0.381	
2008_03	MW-37	MW-37	2/26/2008	1,100																			
2008_SI	MW-37	MW-37	4/29/2008	1,000	0.073	0.0044 U	0.016 J	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	1.5	0.005 U	0.0035 U	1.589	
2008_SI	MW-37	MW-37	7/29/2008	760	0.02 U	0.0044 U	0.0034 U	0.022	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.14	0.005 U	0.0035 U	0.162	
2008_SI	MW-37	MW-37	10/20/2008	250	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.0083 J	0.005 U	0.0035 U	0.0083	
2009_SI	MW-37	MW-37	2/10/2009	770	0.037 U	0.0045 J	0.012 J	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	1.1	0.005 U	0.0035 U	1.1165	
2009_SI	MW-37	MW-37	5/5/2009	750	0.051	0.0044 U	0.011 J	0.016 J	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	1.2	0.005 U	0.0035 U	1.278	
2009_SI	MW-37	MW-37	8/3/2009	320 J	0.0023 U	0.0044 U	0.0034 U	0.011 J	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.019 U	0.005 U	0.0035 U	0.011	
2009_SI	MW-37	MW-37	11/17/2009	160	0.0023 U	0.0044 U	0.0034 U	0.011 J	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.046 U	0.005 U	0.0035 U	0.011	
2010_02SIPMP	MW-37	MW-37	2/9/2010	390	0.02 U	0.0044 U	0.0065 J	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.36	0.005 U	0.0035 U	0.3665	
2010_05SIPMP	MW-37	MW-37	5/25/2010	340	0.0023 U	0.0044 U	0.0069 J	0.0036 U	0.02 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.047 U	0.005 U	0.0035 U	0.0069	
2010_08SIPMP	MW-37	MW-37	8/17/2010	150	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.019 J	0.005 U	0.0035 U	0.019	
2010_11SIPMP	MW-37	MW-37	11/16/2010	110	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.026 U	0.005 U	0.0035 U	ND	
2011_02SIPMP	MW-37	MW-37	2/8/2011	120	0.0023 U	0.0044 U	0.0034 U	0.008 J	0.0053 J	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0036 J	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.02 U	0.005 U	0.0035 U	0.0169	
2011_05SIPMP	MW-37	MW-37	5/16/2011	38	0.0023 U	0.0044 U	0.0034 U	0.0036 J	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.039 U	0.005 U	0.0035 U	0.0036	
2011_08SIPMP	MW-37	MW-37	8/23/2011	16	0.0023 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.02 U	0.005 U	0.0035 U	ND	
2011_11SIPMP	MW-37	MW-37	11/2/2011	22	0.02 U	0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.018 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0046 J	0.0026 U	0.039 U	0.011 U	0.0035 U	0.0046	
2012_02SIPMP	MW-37	MW-37	2/13/2012	50	0.02 U	0.02 U	0.0038 J	0.0049 J	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.043	0.02 U	0.02 U	0.0517	
2012_05SIPMP	MW-37	MW-37	4/30/2012	22	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.021	0.019 U	0.019 U	0.021	
2012_08SIPMP	MW-37	MW-37	8/19/2012	13	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.079	0.019 U	0.019 U	0.079	
2012_11SIPMP	MW-37	MW-37	11/12/2012	38	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U	0.0084 U	0.019 U	0.019 U	ND
2013_02SIPMP	MW-37	MW-37	2/10/2013	0.5 U	0.019 U	0.019 U</																	

Table 4A. Summary of Groundwater Sampling Analytical Results: 2008 through Fourth Quarter 2014

Former J.H. Baxter Wood Treating Facility

Arlington, Washington

Event	Well ID	Sample ID	Sample Date	Pentachlorophenol	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	Total PAHs (calculated)	
				(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	
2012_08SIPMP	MW-39	MW-39	8/19/2012	94																			
2012_11SIPMP	MW-39	MW-39	11/12/2012	120																			
2013_02SIPMP	MW-39	MW-39	2/10/2013	93 J																			
2013_06SIPMP	MW-39	MW-39	6/2/2013	95																			
2013_08SIPMP	MW-39	MW-39	8/26/2013	84																			
2013_12SIPMP	MW-39	MW-39	12/2/2013	58																			
2014_03SIPMP	MW-39	MW-39	3/17/2014	150																			
2014_06SIPMP	MW-39	MW-39	6/2/2014	NA																			
2014_09SIPMP	MW-39	MW-39	9/29/2014	120																			
2014_11SIPMP	MW-39	MW-39	11/17/2014	110																			
2010_08SIPMP	MW-40	MW-40	8/17/2010	260																			
2010_11SIPMP	MW-40	MW-40	11/16/2010	150																			
2011_02SIPMP	MW-40	MW-40	2/8/2011	390																			
2011_05SIPMP	MW-40	MW-40	5/16/2011	420																			
2011_08SIPMP	MW-40	MW-40	8/22/2011	400																			
2011_11SIPMP	MW-40	MW-40	11/1/2011	210																			
2012_02SIPMP	MW-40	MW-40	2/12/2012	160																			
2012_05SIPMP	MW-40	MW-40	4/29/2012	220 J																			
2012_08SIPMP	MW-40	MW-40	8/19/2012	410																			
2012_11SIPMP	MW-40	MW-40	11/11/2012	200																			
2013_02SIPMP	MW-40	MW-40	2/10/2013	180 J																			
2013_06SIPMP	MW-40	MW-40	6/2/2013	350																			
2013_08SIPMP	MW-40	MW-40	8/26/2013	470																			
2013_12SIPMP	MW-40	MW-40	12/2/2013	510																			
2014_03SIPMP	MW-40	MW-40	3/17/2014	450																			
2014_06SIPMP	MW-40	MW-40	6/1/2014	560																			
2014_09SIPMP	MW-40	MW-40	9/29/2014	290																			
2014_11SIPMP	MW-40	MW-40	11/17/2014	240																			
2010_08SIPMP	MW-41	MW-41	8/17/2010	420																			
2010_11SIPMP	MW-41	MW-41	11/16/2010	300																			
2011_02SIPMP	MW-41	MW-41	2/8/2011	240																			
2011_05SIPMP	MW-41	MW-41	5/15/2011	110																			
2011_08SIPMP	MW-41	MW-41	8/22/2011	300																			
2011_11SIPMP	MW-41	MW-41	11/1/2011	340																			
2012_02SIPMP	MW-41	MW-41	2/12/2012	220																			
2012_05SIPMP	MW-41	MW-41	4/29/2012	110 J																			
2012_08SIPMP	MW-41	MW-41	8/19/2012	200																			
2012_11SIPMP	MW-41	MW-41	11/11/2012	220																			
2013_02SIPMP	MW-41	MW-41	2/10/2013	49 J																			
2013_06SIPMP	MW-41	MW-41	6/2/2013	160	0.0043 U	0.02 U	0.02 U	0.0071 J	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.054	0.02 U	0.02 U	0.0611	
2013_08SIPMP	MW-41	MW-41	8/25/2013	340																			
2013_12SIPMP	MW-41	MW-41	12/1/2013	310																			
2014_03SIPMP	MW-41	MW-41	3/16/2014	340																			
2014_06SIPMP	MW-41	MW-41	6/2/2014	320																			
2014_09SIPMP	MW-41	MW-41	9/29/2014	410																			
2014_11SIPMP	MW-41	MW-41	11/17/2014	350																			
2010_08SIPMP	MW-42	MW-42	8/16/2010	1.2																			
2010_11SIPMP	MW-42	MW-42	11/15																				

Table 4A. Summary of Groundwater Sampling Analytical Results: 2008 through Fourth Quarter 2014

Former J.H. Baxter Wood Treating Facility

Arlington, Washington

Event	Well ID	Sample ID	Sample Date	Pentachlorophenol	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Naphthalene	Phenanthrene	Pyrene	Total PAHs (calculated)	
				(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	
2013_12SIPMP	MW-42	MW-42	12/2/2013	5.6																			
2014_03SIPMP	MW-42	MW-42	3/17/2014	5.4																			
2014_06SIPMP	MW-42	MW-42	6/2/2014	7.9																			
2014_09SIPMP	MW-42	MW-42	9/29/2014	6.5																			
2014_11SIPMP	MW-42	MW-42	11/17/2014	5.9																			
2010_11SIPMP	MW-43	MW-43	11/15/2010	0.07 U																			
2011_02SIPMP	MW-43	MW-43	2/8/2011	0.078 J																			
2011_05SIPMP	MW-43	MW-43	5/16/2011	0.13 J																			
2011_08SIPMP	MW-43	MW-43	8/23/2011	0.07 U																			
2011_11SIPMP	MW-43	MW-43	11/2/2011	0.07 U																			
2012_02SIPMP	MW-43	MW-43	2/13/2012	0.099 NJ																			
2012_05SIPMP	MW-43	MW-43	5/3/2012	0.5 U																			
2012_08SIPMP	MW-43	MW-43	8/20/2012	0.5 U																			
2012_11SIPMP	MW-43	MW-43	11/13/2012	0.5 U																			
2013_02SIPMP	MW-43	MW-43	2/11/2013	0.5 U																			
2013_06SIPMP	MW-43	MW-43	6/3/2013	0.5 U																			
2013_08SIPMP	MW-43	MW-43	8/26/2013	0.2 U																			
2013_12SIPMP	MW-43	MW-43	12/2/2013	0.5 U																			
2014_03SIPMP	MW-43	MW-43	3/17/2014	0.5 U																			
2014_06SIPMP	MW-43	MW-43	6/2/2014	0.5 U																			
2014_09SIPMP	MW-43	MW-43	9/29/2014	0.5 U																			
2014_11SIPMP	MW-43	MW-43	11/17/2014	0.5 U																			

Notes

ug/L = micrograms per liter

i = Method reporting limit/method detection limit is elevated due to a chromatographic interference.

J = Result is an estimated concentration that is less than the method reporting limit, but greater than or equal to the method detection limit.

N = Analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.

NA = Sample bottles arrived at laboratory broken and could not be analyzed.

ND = Not detected.

NJ = Analysis indicates the presence of an analyte that has been tentatively identified and the associated numerical value represents its approximate concentration.

PAHs = polycyclic aromatic hydrocarbons.

U = Analyte was not detected above the reported sample quantification limit.

Table 4B. Analytical Results of Pentachlorophenol and Breakdown Products in Extraction Well Composite Samples
Former J.H. Baxter Wood Treating Facility
Arlington, Washington

Analyte ¹	Unit	12/2/2013 ^{2,3}	3/16/2014 ^{2,3}	6/2/2014 ^{2,4}	9/29/2014 ^{2,3}	11/17/2014 ^{2,3}
Pentachlorophenol	ug/L	630	340	51	790	590
2,4,5-Trichlorophenol	ug/L	ND	ND	ND	0.24 J	ND
2,4,6-Trichlorophenol	ug/L	ND	ND	0.20 J	ND	ND
Total Tetrachlorophenols ⁵	ug/L	21	15	29	31	27

Notes

ug/L = micrograms per liter.

J = Result is an estimated concentration that is less than the method reporting limit, but greater than or equal to the method detection limit.

ND = not detected.

1 Analysis by EPA method 8151M.

2 Composite samples do not include groundwater from extraction well EW-1, EW-3, EW-5, EW-6, and EW-7. EW-1, EW-5, and EW-6 were shut down due to a recurring high water level condition in the infiltration trench. EW-7 was discontinued with approval from EPA in 2010. EW-3 was shut down during the second quarter 2013 and was off during sample collection.

3 Sample composite from EW-2 and EW-4.

4 Sample contains water from EW-4 only.

5 Total tetrachlorophenols comprises multiple tetrachlorophenol isomers, including 2,3,4,6-tetrachlorophenol and 2,3,5,6-tetrachlorophenol.

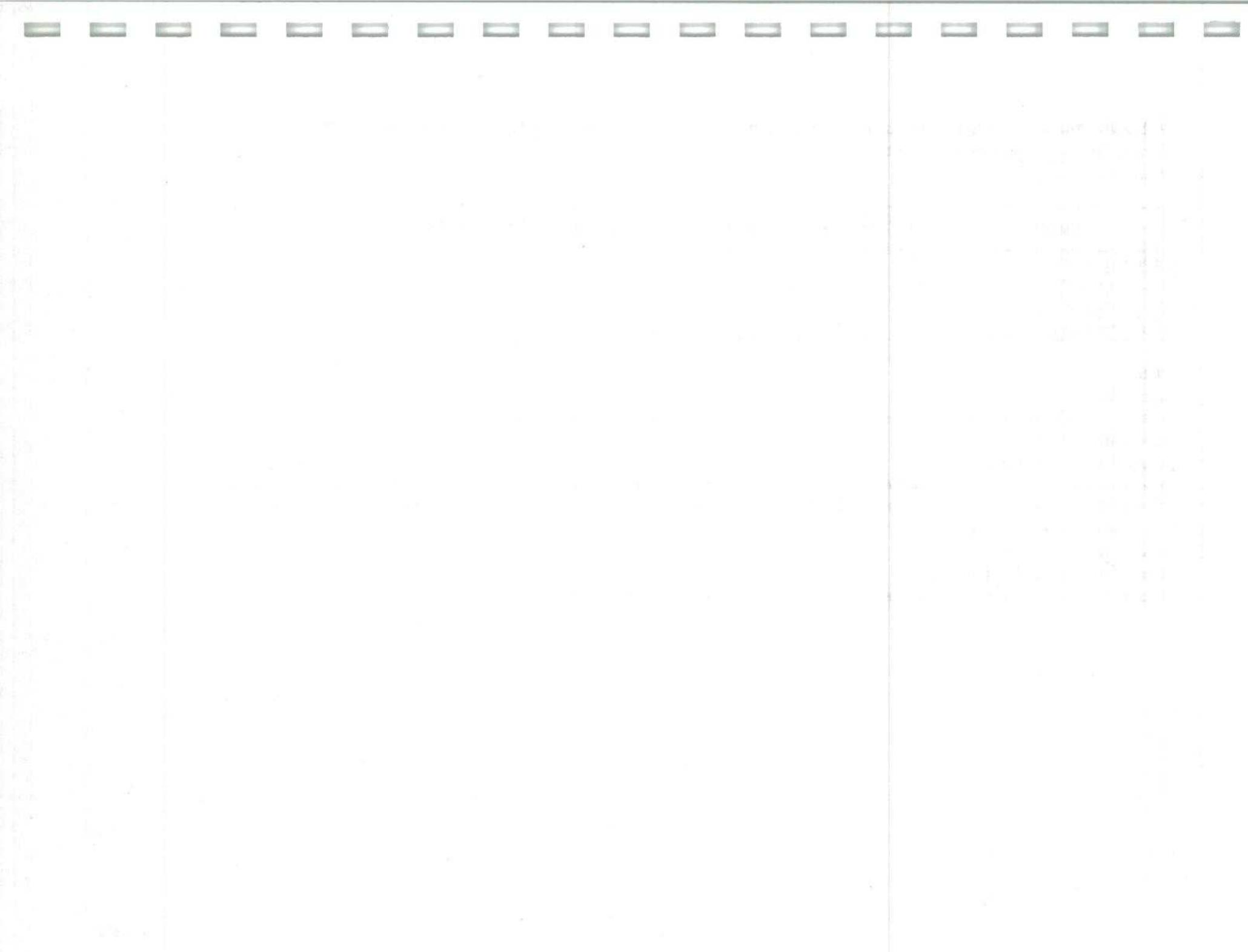


Table 4C. Historical Analytical Results of Pentachlorophenol and Breakdown Products in Extraction Well Composite Samples

Former J.H. Baxter Wood Treating Facility
Arlington, Washington

Sample ID	Sample Date	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,3,4,6-Tetrachlorophenol	2,3,5,6-Tetrachlorophenol	Total Tetrachlorophenols ¹	3,4-Dichlorophenol	3,5-Dichlorophenol	Pentachlorophenol	Comments ²
		(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	
EWCOMP030509	3/5/2009	1.0 U	1.0 U	15.0	2.0				430	
EWCOMP040209	4/2/2009	1.0 U	1.0 U	15.0	2.5				180	
EWCOMP052609	5/26/2009	1.1 U	1.1 U	12.0	2.0				240	
EWCOMP070709	7/7/2009	1.0 U	1.0 U	9.1	1.2				190	
EW-1-EW-7	8/5/2009	0.98 U	0.98 U	8.9	1.3				240	PCP from Method 8270D
EWCOMP082709	8/27/2009	1.0 U	1.0 U	7.1	1.0				180	
EWCOMP093009	9/30/2009	1.0 U	1.0 U	9.4	1.4				230	EW 1- EW 6 only
EW-1-EW-6	11/19/2009	0.96 U	0.96 U	10.0	1.9				450	EW 1- EW 6 only; analysis by 8270D SIM
EWCOMP122809	12/28/2009	1.0 U	1.0 U	15.0	1.8				490	EW 1- EW 6 only; analysis by 8270D SIM
EWCOMP12610	1/26/2010	0.99 U	0.99 U	16.0	1.8				470	EW 1- EW 6 only; analysis by 8270D SIM
EW1-7	2/11/2010	1.1 U	1.1 U	8.9	1.2				270	Analysis by 8270D SIM
EWCOMP32410	3/24/2010	1.0 U	1.0 U	13.0	1.6				340	Analysis by 8270D SIM
EWCOMP42910	4/30/2010	1.1 U	1.1 U	11.0	1.4				320	Analysis by 8270D
EW1-7	5/27/2010	0.96 U	0.96 U	5.2	1.0				110	Analysis by 8270D
EWCOMP63010	6/30/2010	1.1 U	1.1 U	11.0	1.8				320	EW1-EW3 & EW5-EW7, Analysis by 8270D SIM
EW1-7	8/19/2010	0.95 U	0.95 U	13.0	2.0				300	Analysis by 8270D
EW1-6	12/7/2010	0.97 U	0.97 U	9.5	1.5				540	Analysis by 8270D
Extraction Well Composite	2/12/2011	0.96 U	0.96 U	32.0	10.0				560	EW 1- EW 6 only; Analysis by 8270D
EW1-4 Composite	5/18/2011	0.099 U	0.06 J			12 U	0.5 U	0.74 U	320	EW 1- EW 4 only; Analysis by 8151M
EW1-4	8/25/2011	0.099 U	0.13 J			28			710	EW 1- EW 4 only; Analysis by 8151M
EW1-4	11/3/2011	0.099 U	0.11 J			33 U			710	EW 1- EW 4 only; Analysis by 8151M
EW1-4	2/14/2012	0.099 U	0.11 J			19 Ui			650	EW 1- EW 4 only; Analysis by 8151M
EW1-4	5/3/2012	1.0 U	0.16 NJ			39 J			770	EW 1- EW 4 only; Analysis by 8151M
EW2-4 COMP	8/20/2012	1.0 U	0.50 U			26 U			550	EW 2- EW 4 only; Analysis by 8151M

Table 4C. Historical Analytical Results of Pentachlorophenol and Breakdown Products in Extraction Well Composite Samples

Former J.H. Baxter Wood Treating Facility

Arlington, Washington

Sample ID	Sample Date	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol	2,3,4,6-Tetrachlorophenol	2,3,5,6-Tetrachlorophenol	Total Tetrachlorophenols ¹	3,4-Dichlorophenol	3,5-Dichlorophenol	Pentachlorophenol	Comments ²
		(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	
EW 1-4 COMP	11/12/2012	1.0 U	0.50 U			27 U			690	EW 2- EW 4 only; Analysis by 8151M
EW 1-4 COMP	2/11/2013	1.0 U	0.50 U			39 U			820 J	EW 2- EW 4 only; Analysis by 8151M
EW 1-4 COMP	6/4/2013	1.0 U	0.50 U			2.4 U			590	EW 2 & EW 4 only; Analysis by 8151M
EW 1-4 COMP	8/26/2013	0.19 U	0.14 U			18 J			530	EW 2 & EW 4 only; Analysis by 8151M
EW 1-4 COMP	12/2/2013	1.0 U	0.50 U			21			630	EW 2 & EW 4 only; Analysis by 8151M
EW 1-4 COMP	3/17/2014	1.0 U	0.50 U			15			340	EW 2 & EW 4 only; Analysis by 8151M
EW 1-4 COMP	6/2/2014	1.0 U	0.20 J			29			51	EW 4 only; Analysis by 8151M
EW 1-4 COMPOSITE	9/29/2014	0.24 J	0.50 U			31			790	EW 2 & EW 4 only; Analysis by 8151M
EW 1-4 COMPOSITE	11/17/2014	1.0 U	0.50 U			27			590	EW 2 & EW 4 only; Analysis by 8151M

Notes

ug/L = micrograms per liter.

i = Method reporting limit/method detection limit is elevated due to a chromatographic interference.

J = Result is an estimated concentration that is less than the method reporting limit, but greater than or equal to the method detection limit.

NJ = Analysis indicates the presence of an analyte that has been tentatively identified and the associated numerical value represents its approximate concentration.

U = Analyte was not detected above the reported sample quantification limit.

1 Total tetrachlorophenols comprises multiple tetrachlorophenol isomers, including 2,3,4,6-tetrachlorophenol and 2,3,5,6-tetrachlorophenol.

2 EW-1, EW-5, and EW-6 were shut down due to a recurring high water level condition in the infiltration trench. EW-7 was discontinued with approval from the EPA in 2010. EW-3 was shut down during the second quarter 2013 and was off during sample collection.

Table 4D. Analytical Results of Pentachlorophenol and Breakdown Products in Individual Extraction Wells

Former J.H. Baxter Wood Treating Facility

Arlington, Washington

Sample ID	Sample Date	2,4,5-Trichloropheno ¹		2,4,6-Trichloropheno ¹		2,3,4,6-Tetrachloropheno ¹		2,3,5,6-Tetrachloropheno ¹		Pentachloropheno ¹	
		($\mu\text{g/L}$)	($\mu\text{g/L}$)	($\mu\text{g/L}$)	($\mu\text{g/L}$)	($\mu\text{g/L}$)	($\mu\text{g/L}$)	($\mu\text{g/L}$)	($\mu\text{g/L}$)	($\mu\text{g/L}$)	($\mu\text{g/L}$)
EW-1	2/11/2010	1.0	U	1.0	U	7.5		2.4		200	
EW-2	2/11/2010	1.0	U	1.0	U	30		4.6		640	
EW-3	2/11/2010	1.0	U	1.0	U	40		4.2		1,400	
EW-4	2/11/2010	1.0	U	1.0	U	5.7		1.0	U	450	
EW-5	2/11/2010	1.0	U	1.0	U	1.0	U	1.0	U	5.0	U
EW-6	2/11/2010	1.0	U	1.0	U	1.0	U	1.0	U	5.0	U
EW-7	2/11/2010	1.0	U	1.0	U	1.0	U	1.0	U	5.2	U

Notes

ug/L = micrograms per liter.

U = Analyte was not detected above the reported sample quantification limit.

ND = not detected.

1 Analysis by EPA method 8270D SIM.

Table 5. Bacteriological Analysis Results for Heterotrophic Plate Count

Former J.H. Baxter Wood Treating Facility

Arlington, Washington

Sample ID	Sample Date	Heterotrophic Plate Count ¹ (CFU/mL)	Comments
EW 1-7	5/25/2010	1 U	Analyzed by Spectra Laboratories, Tacoma, WA
MW-3	5/25/2010	ND	Analyzed by Spectra Laboratories, Tacoma, WA
MW-3	11/16/2010	1 U	Analyzed by Edge Analytical Laboratories, Burlington, WA
EW 1-6	12/7/2010	95	Analyzed by Edge Analytical Laboratories, Burlington, WA

Notes

CFU/mL = colony forming units per milliliter.

J = Result is an estimated concentration that is less than the method reporting limit, but greater than or equal to the method detection limit.

U = Analyte was not detected above the reported sample quantification limit.

1 Analysis by SM 9215B.

Table 6. Light Non-Aqueous Phase Liquid (LNAPL) Recovery

Former J.H. Baxter Wood Treating Facility

Arlington, Washington

Date	Well ID	Weight (pounds)			Volume (gallons)
		Total	Material	LNAPL	
4/7/2008	MW-12	2.24	0.53	1.71	0.20
6/2/2008	MW-12	2.34	0.53	1.81	0.22
7/28/2008	MW-12	2.14	0.54	1.60	0.19
9/26/2008	MW-12	1.9	0.46	1.44	0.17
11/24/2008	MW-12	2.22	0.54	1.68	0.20
1/7/2009	MW-13	2.12	0.56	1.56	0.19
3/5/2009	MW-12	2.35	0.64	1.71	0.20
4/1/2009	MW-12	2.58	0.64	1.94	0.23
5/27/2009	MW-12	2.76	0.68	2.08	0.25
11/19/2009	MW-12	NA	NA	1.82	0.22
12/28/2009	MW-12	2.64	0.66	1.98	0.24
1/25/2010	MW-12	2.48	0.64	1.84	0.22
3/23/2010	MW-12	2.6	0.66	1.94	0.23
4/28/2010	MW-12	2.68	0.64	2.04	0.24
6/29/2010	MW-12	2.52	0.64	1.88	0.22
10/19/2010	MW-13	1.49	0.64	0.85	0.10
10/19/2010	MW-12	1.8	0.64	1.16	0.14
2/10/2011	MW-12	2.19	0.56	1.63	0.19
5/18/2011	MW-12	2.56	0.64	1.92	0.23
5/18/2011	MW-13	1.9	0.45	1.45	0.17
5/18/2011	MW-19	1.8	0.63	1.17	0.14
5/18/2011	MW-21	1.59	0.58	1.01	0.12
8/24/2011	MW-12	2.07	0.63	1.44	0.17
11/3/2011	MW-12	2.27	0.61	1.66	0.20
2/15/2012	MW-12	1.89	0.64	1.25	0.15
5/2/2012	MW-12	2.45	0.64	1.81	0.22
8/20/2012	MW-12	1.08	0.47	0.61	0.07
11/13/2012	MW-12	NC	NC	0	0.00
2/12/2013	MW-12	2.38	0.41	1.97	0.23
6/3/2013	MW-12	1.91	0.58	1.33	0.16
8/26/2013	MW-12	0.93	0.2	0.73	0.09
12/3/2013	MW-12	0.98	0.33	0.65	0.08
3/17/2014	MW-12	2.14	0.32	1.82	0.22
6/2/2014	MW-12	2.13	0.3	1.83	0.22
9/29/2014	MW-12	1.16	0.32	0.84	0.10
11/17/2014	MW-12	1.71	0.31	1.41	0.17
Total				53.6	6.39

Notes

NA = not analyzed.

NC = no change, water level low.



Figures

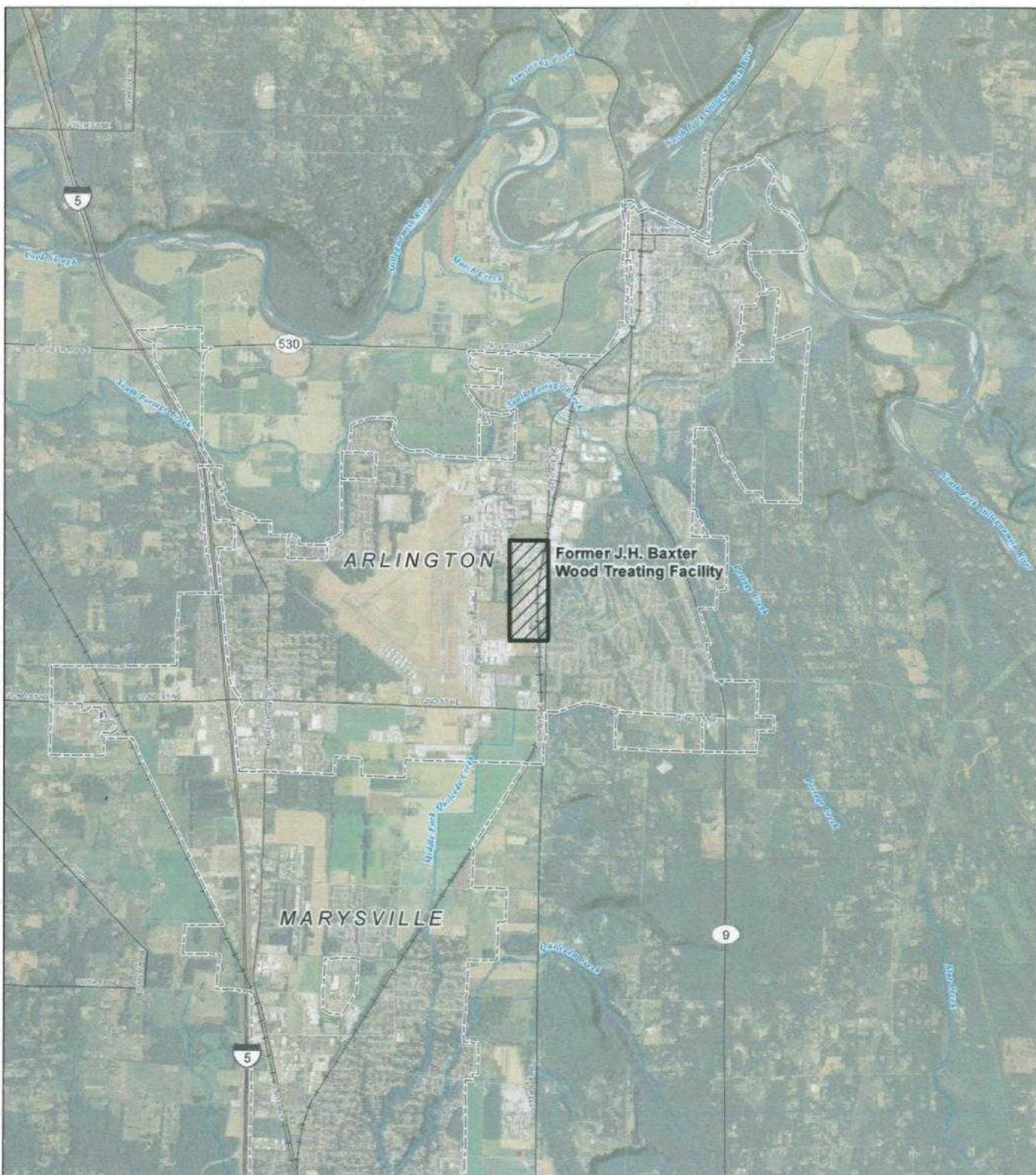


FIGURE 1
Site Vicinity Map
Former J.H. Baxter Wood Treating Facility
Arlington, Washington

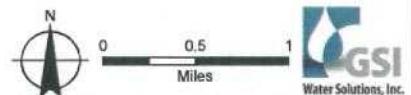




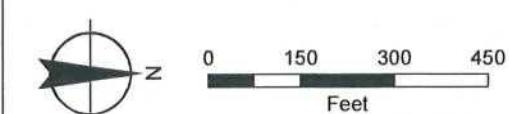


FIGURE 2

Groundwater Monitoring Network
Former J.H. Baxter Wood Treating Facility
Arlington, Washington

LEGEND

- Monitoring Well
- Recovery Well
- Extraction Well
- Infiltration Trench



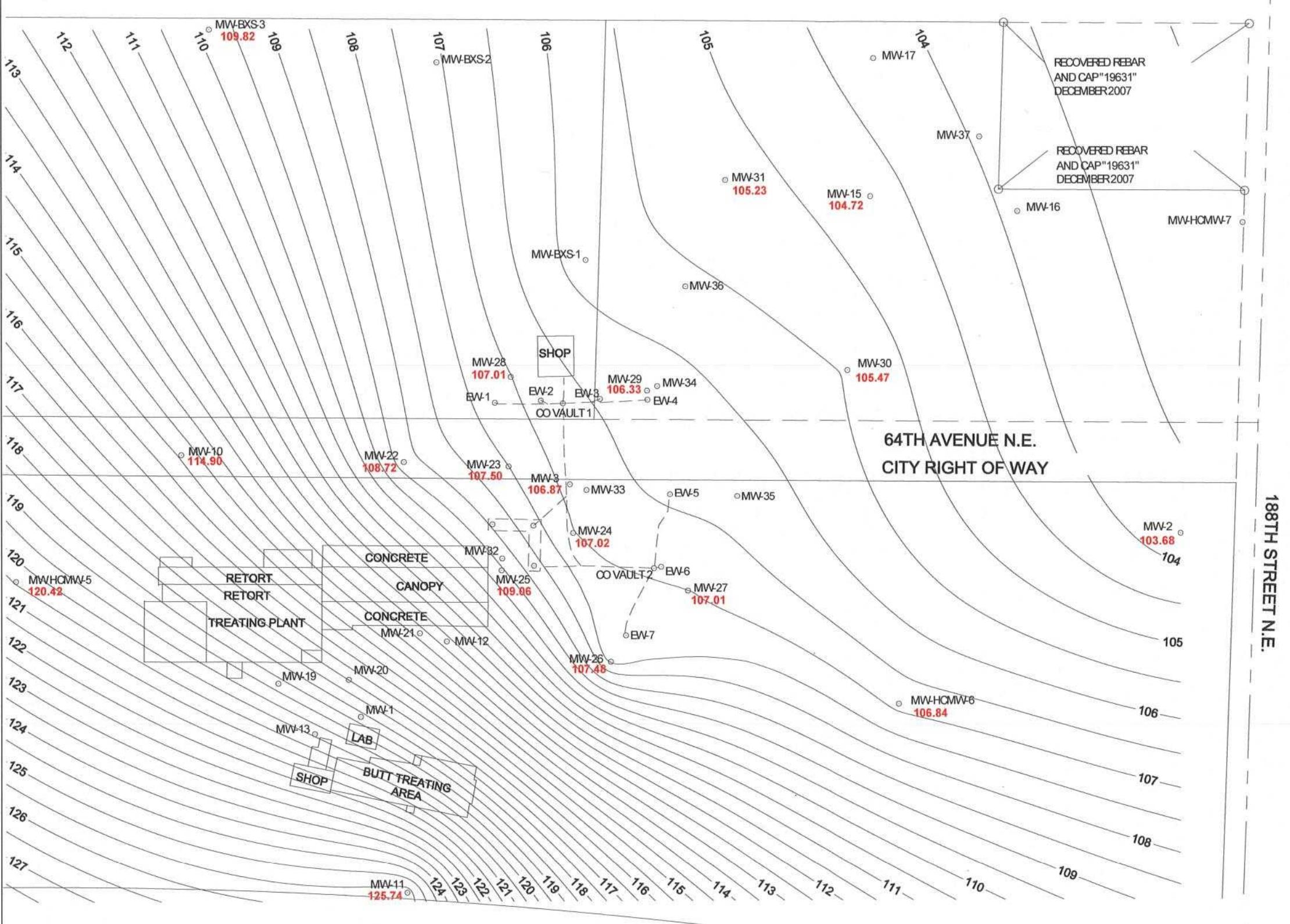
MAP NOTES:
Date: March 12, 2015
Data Sources: AMEC, ESRI, Air photo taken on July 9, 2010 by Microsoft



FIGURE 3

Groundwater Elevation Contour Map:
Baseline Elevations, January 28, 2008

Former J.H. Baxter Wood Treating Facility
Arlington, Washington



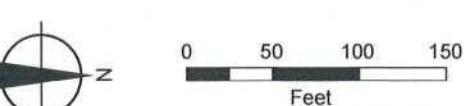
LEGEND

○ Monitoring Well Identification and
MW-15 104.72
Groundwater Elevation Contour (ft.)

106 Groundwater Elevation Contour (ft.)

NOTES:

1. All elevations exist in NAVD88.
2. Groundwater elevation contours interpolated at 0.5 ft intervals using kriging geostatistical methodology.
3. Elevation at MW-23 on 1/28/08 was raised by 1 ft. due to suspected error in field recording.



MAP NOTES:
Date: February 25, 2015
Data Sources: Geomatrix, Figure 3,
April 2014





FIGURE 4

Groundwater Elevation Contour Map:

Fourth Quarter 2014

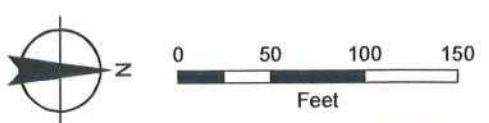
Former J.H. Baxter Wood Treating Facility
Arlington, Washington

LEGEND

- Groundwater Elevation Contours (dashed where inferred)
- Shallow Monitoring Well (November 2014 Groundwater Elevation)
- Extraction Well
- Infiltration Trench
- Infiltration Gallery Piping

NOTES:

- All elevations exist in NAVD88.
- Groundwater elevation measured at MW-16 not included in contours.



MAP NOTES:

Date: March 12, 2015
Data Sources: AMEC, ESRI, Air photo taken on July 9, 2010 by Microsoft





FIGURE 5

Groundwater Differential Contour Map:
Fourth Quarter 2014

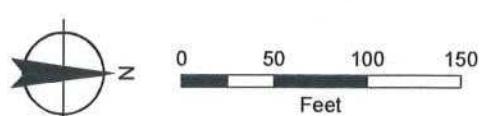
Former J.H. Baxter Wood Treating Facility
Arlington, Washington

LEGEND

- Change in Groundwater Elevation Contours (dashed where inferred)
- Shallow Monitoring Well (Change in Groundwater Elevation)
- Extraction Well
- Infiltration Trench
- Infiltration Gallery Piping

NOTES:

- Differential groundwater elevations calculated by subtracting the November 2014 elevation from the baseline elevation measured on January 28, 2008.
- Groundwater elevation measured at MW-16 not included in contours.



MAP NOTES:

Date: March 12, 2015
Data Sources: AMEC, ESRI, Air photo taken on July 9, 2010 by Microsoft



FIGURE 7

Pentachlorophenol in Groundwater:
Fourth Quarter 2012 - Fourth Quarter 2014

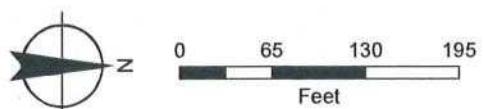
Former J.H. Baxter Wood Treating Facility
Arlington, Washington

**LEGEND**

- Shallow Monitoring Well
- Deep Monitoring Well
- Extraction Well

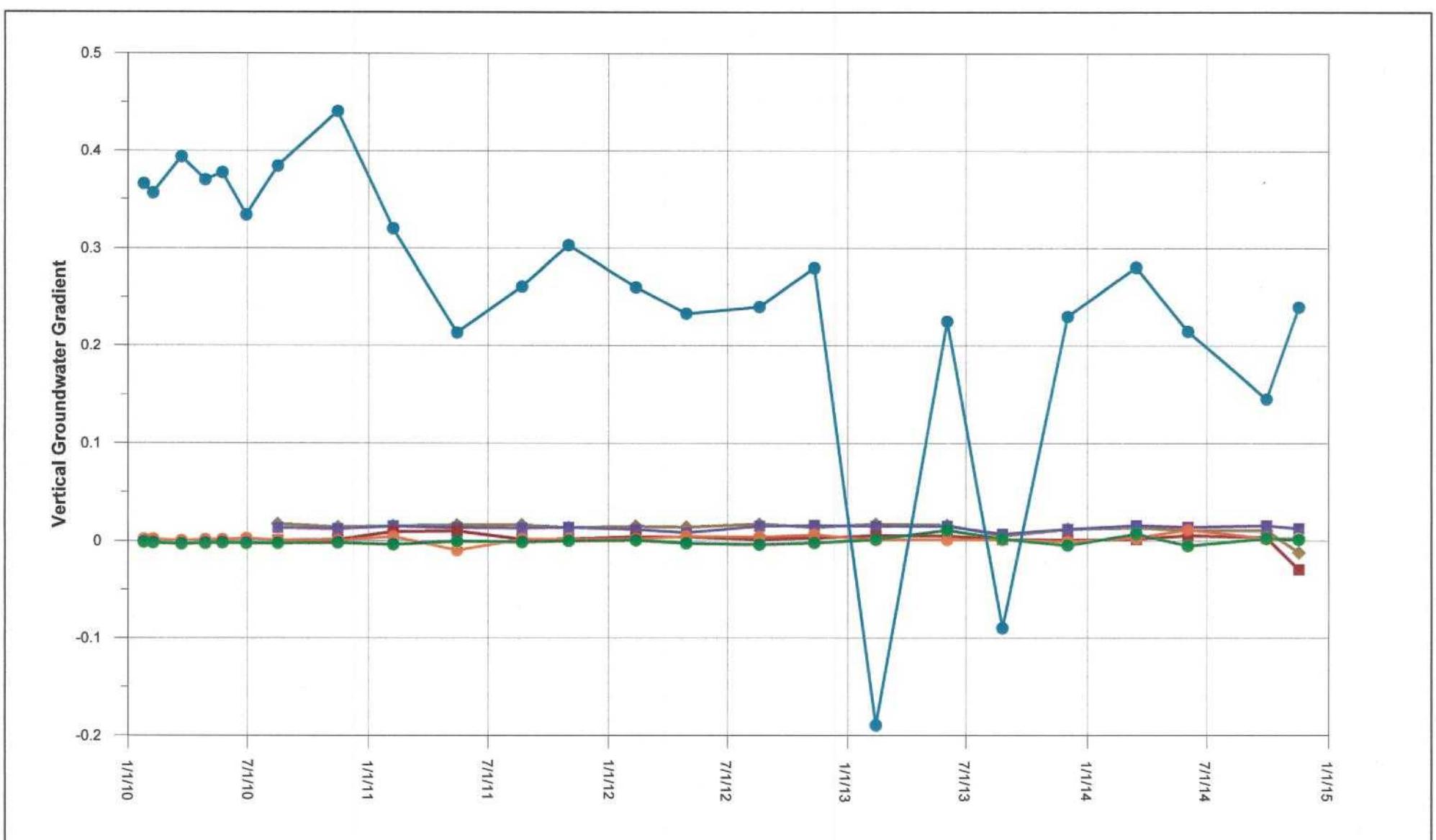
NOTES:

1. Results in ug/L (microgram per liter)
2. Abbreviations:
 - J Estimated Value
 - NA Not Analyzed
 - N Tentatively Identified Analyte
 - U Not Detected Above the Reporting Limit

**MAP NOTES:**

Date: March 12, 2015
Data Sources: AMEC, ESRI, Air photo taken on July 9, 2010 by Microsoft





Legend:

- MW-25/MW-32, Shallow to Intermediate Zone
- MW-3/MW-33, Shallow to Intermediate Zone
- MW-29/MW-34, Shallow to Intermediate Zone
- MW-29/MW-38, Shallow to Deep Zone
- MW-15/MW-40, Shallow to Deep Zone
- MW-37/MW-41, Intermediate to Deep Zone

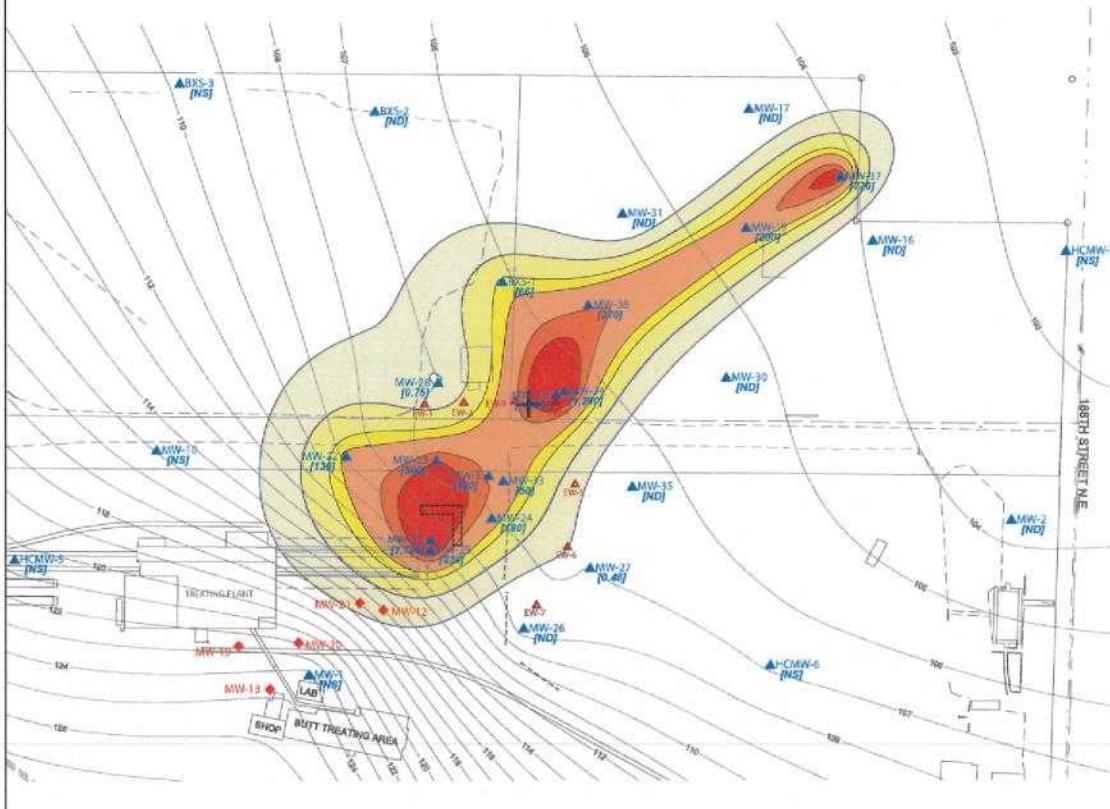
Notes:

Vertical groundwater gradients are dimensionless. Positive values indicate a downward flow direction, while negative values indicate an upward flow direction. In vicinity of MW-25 and MW-32, a silt layer is approximately 20' below ground surface, and could account for larger vertical gradient.

FIGURE 6
Vertical Groundwater Gradient Trends
Former J.H. Baxter Wood Treating Facility
Arlington, Washington



JANUARY 2008



APRIL 2008

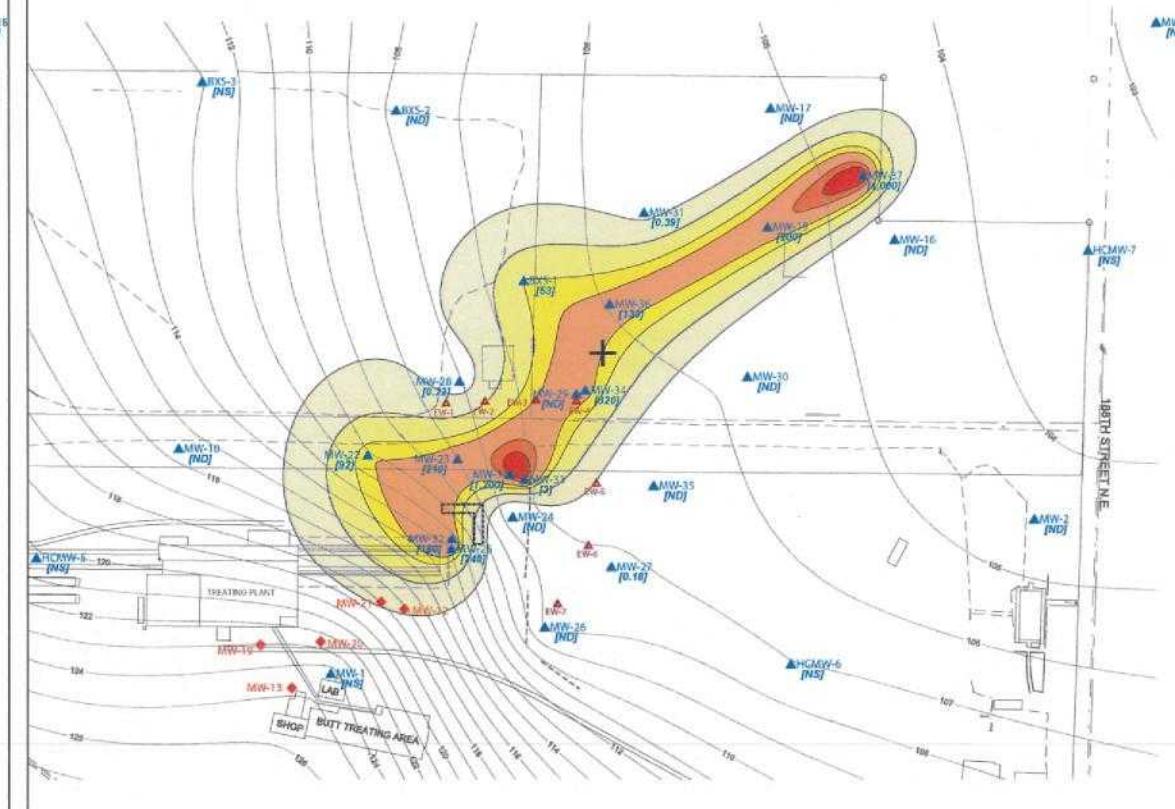


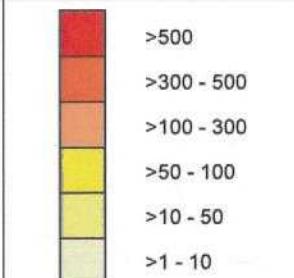
FIGURE 8

Pentachlorophenol Isopleth Map: 2008
Former J.H. Baxter Wood Treating Facility
Arlington, Washington

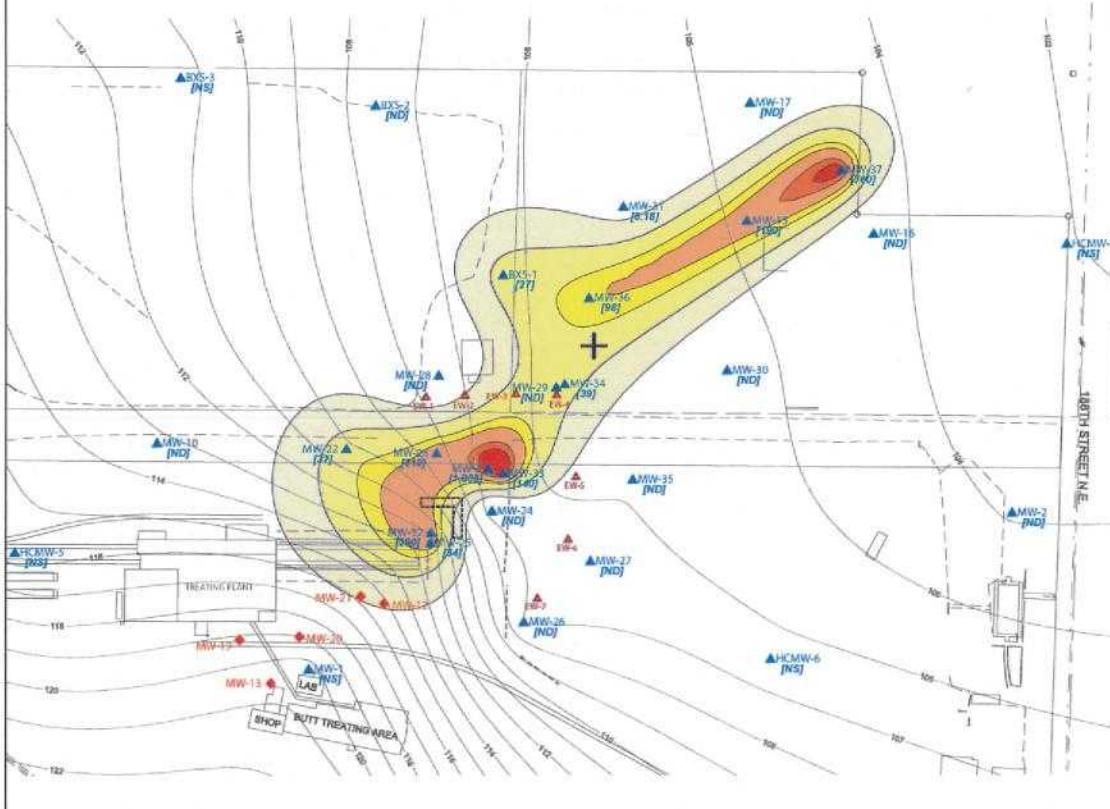
LEGEND

- ▲ Monitoring Well and Pentachlorophenol (PCP) Concentration (ug/L)
- ◆ LNAPL Recovery Well
- △ Groundwater Extraction Well
- Infiltration Gallery
- ND Not-Detected
- NS Not Sampled
- + PCP Plume Center of Mass
- 107 Groundwater Elevation Isopleth

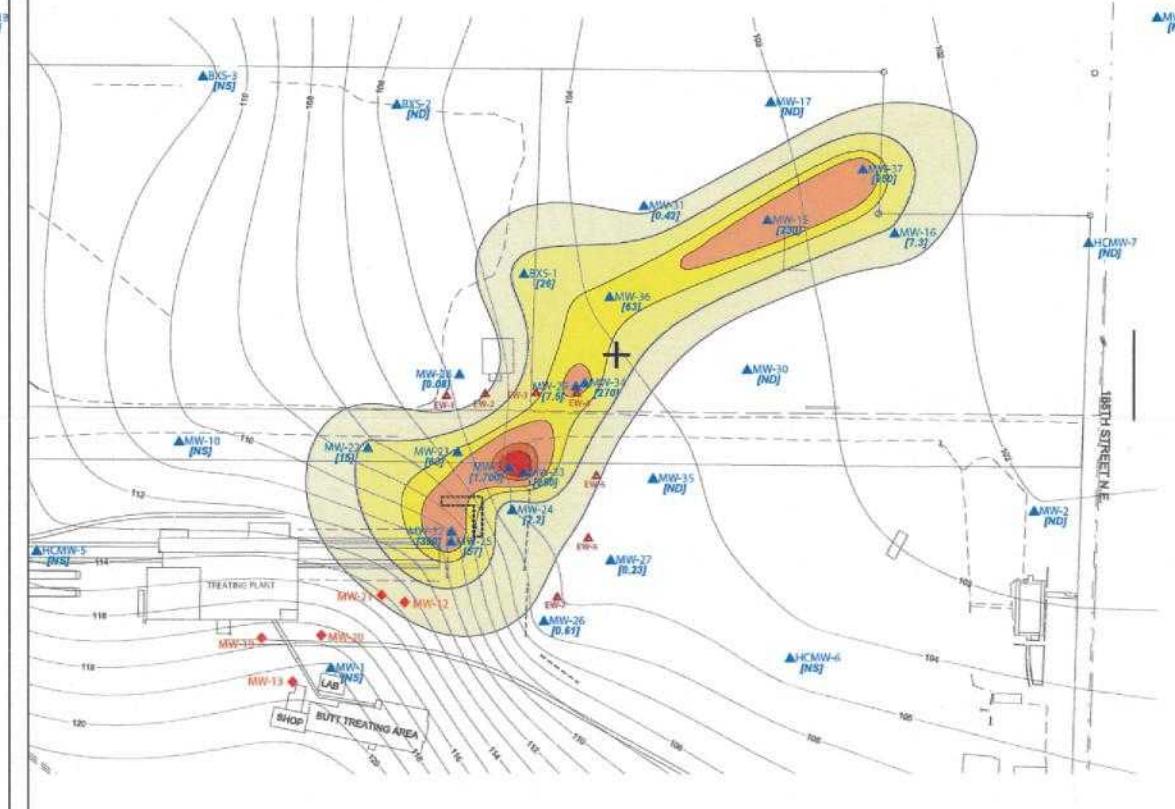
Pentachlorophenol Concentration (ug/L)



JULY 2008



OCTOBER 2008



PCP Plume Stability Data Summary

January 2008

4.4 Acres
116 ug/L
12.4 Pounds

April 2008

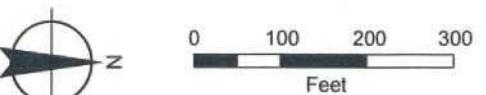
3.9 Acres
59.7 ug/L
5.7 Pounds

July 2008

3.4 Acres
49.2 ug/L
4.1 Pounds

October 2008

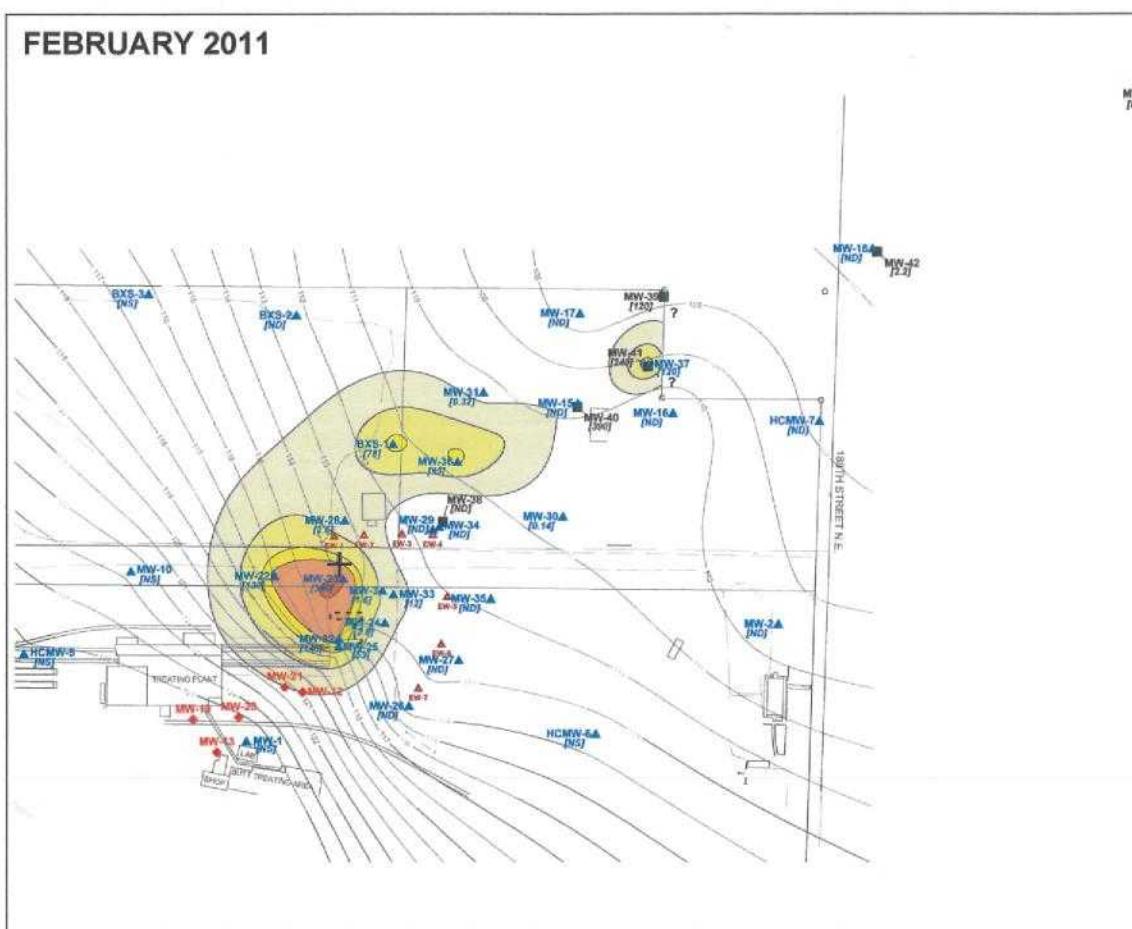
4.2 Acres
40.7 ug/L
4.1 Pounds



MAP NOTES:

Date: February 20, 2015
Data Sources: Premier Environmental Services, Inc., Figures 8-11, 03/13/14

FEBRUARY 2011



MAY 2011

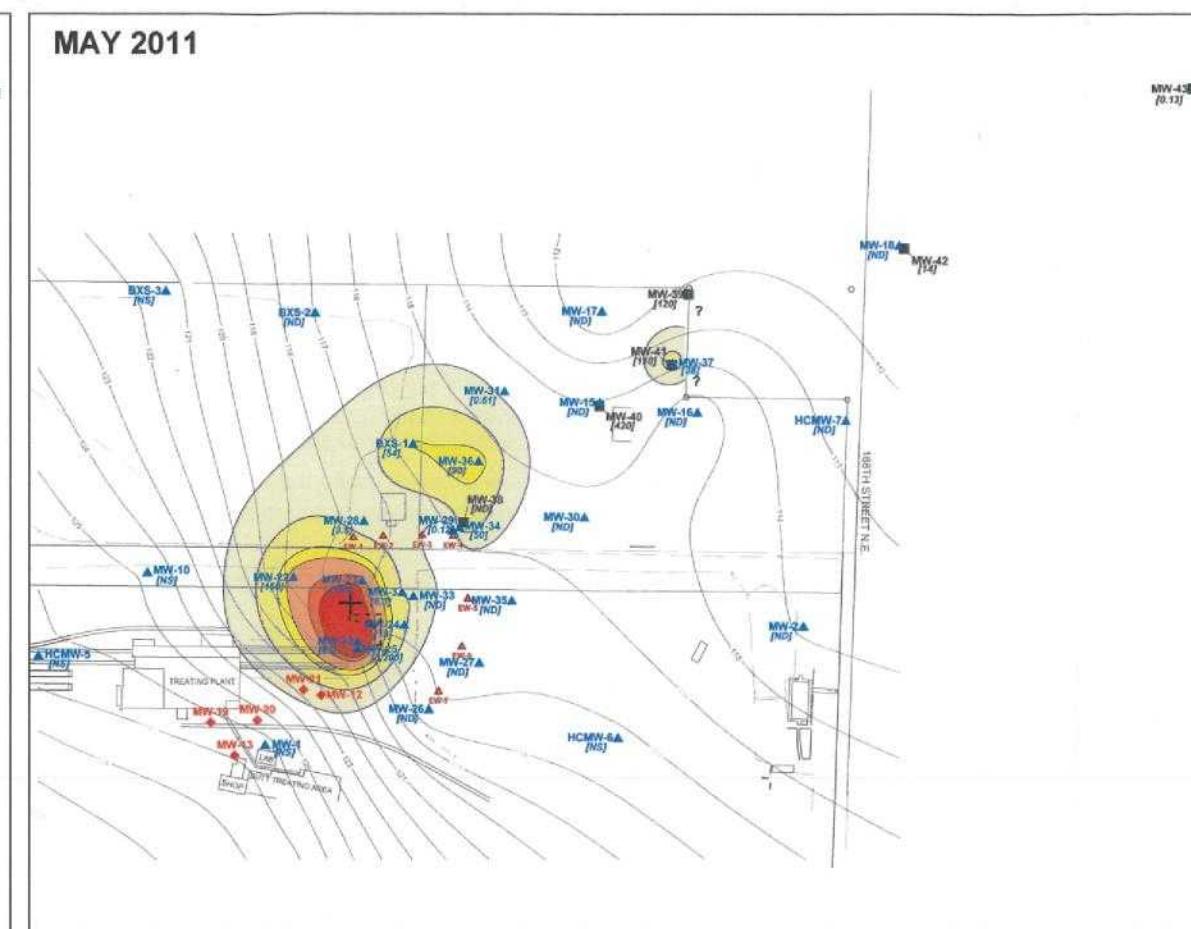


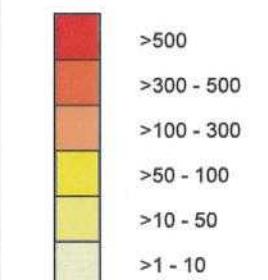
FIGURE 11

Pentachlorophenol Isopleth Map: 2011
Former J.H. Baxter Wood Treating Facility
Arlington, Washington

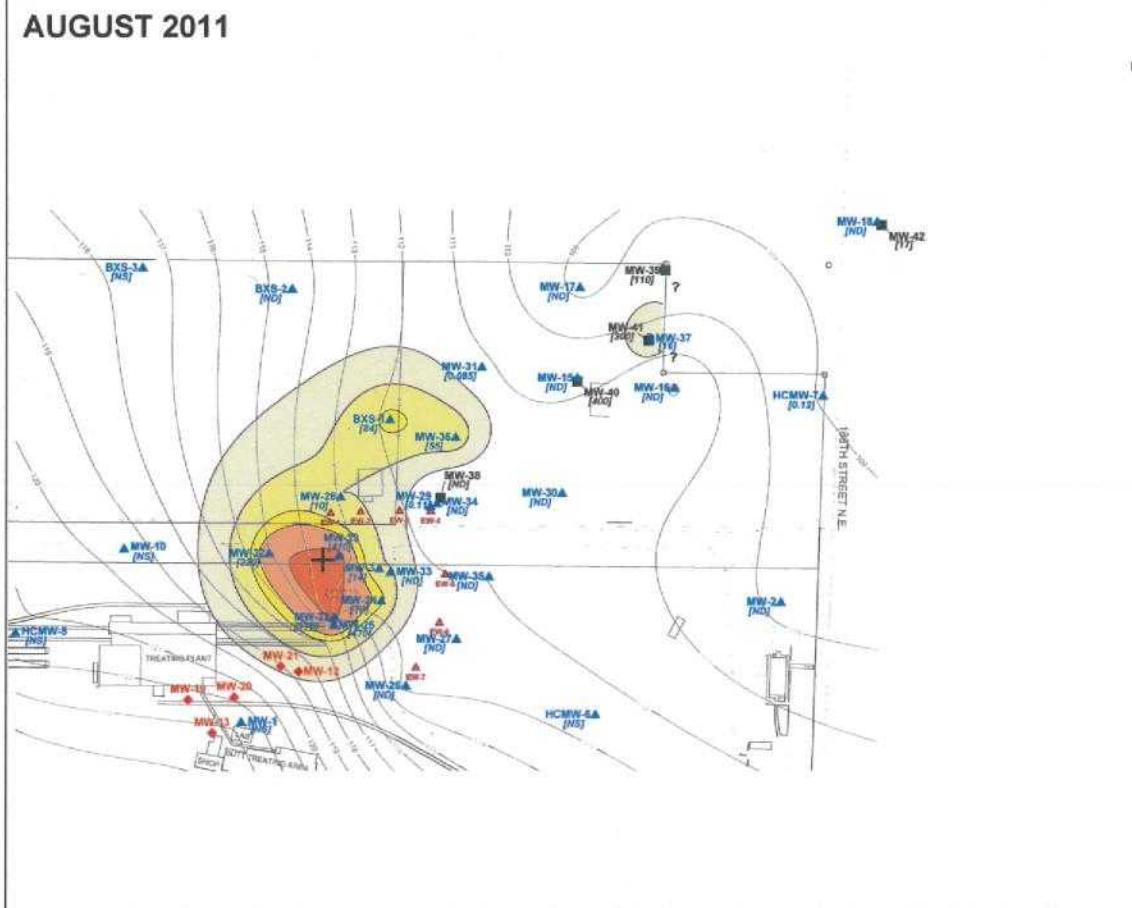
LEGEND

- ▲ Monitoring Well and Pentachlorophenol (PCP) Concentration (ug/L)
- Deep Monitoring Well and PCP Concentration (ug/L)
- ◆ LNAPL Recovery Well
- △ Groundwater Extraction Well
- Infiltration Gallery
- ND Not-Detected
- NS Not Sampled
- + PCP Plume Center of Mass
- 107 Groundwater Elevation Isopleth

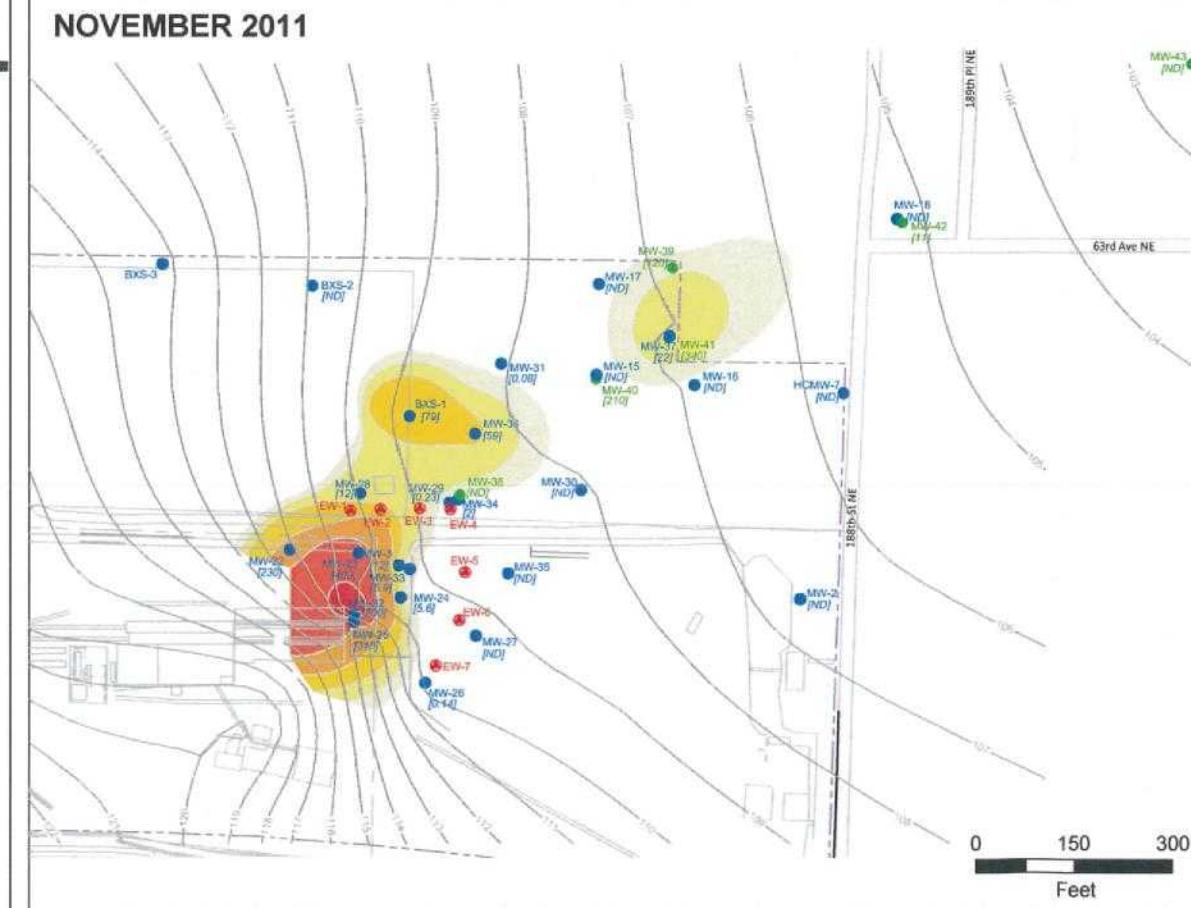
PCP Plume Concentration (ug/L)



AUGUST 2011



NOVEMBER 2011



PCP Plume Stability Data Summary

February 2011

3.5 Acres
26.3 ug/L
2.2 Pounds

May 2011

3.6 Acres
70.1 ug/L
6.2 Pounds

August 2011

3.4 Acres
45.8 ug/L
3.8 Pounds

November 2011

Not Measured
Not Measured
Not Measured

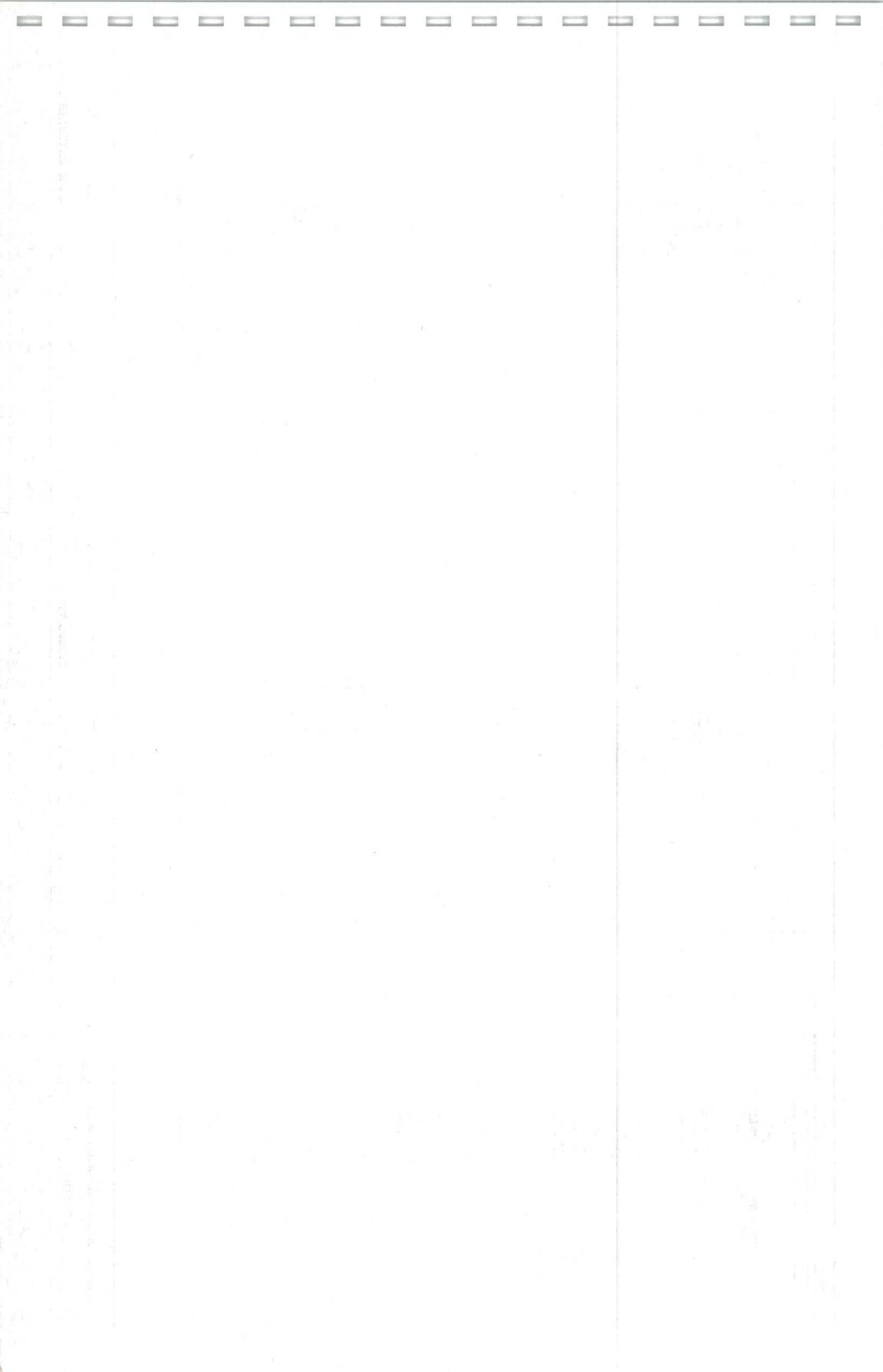


0 120 240 360
Feet

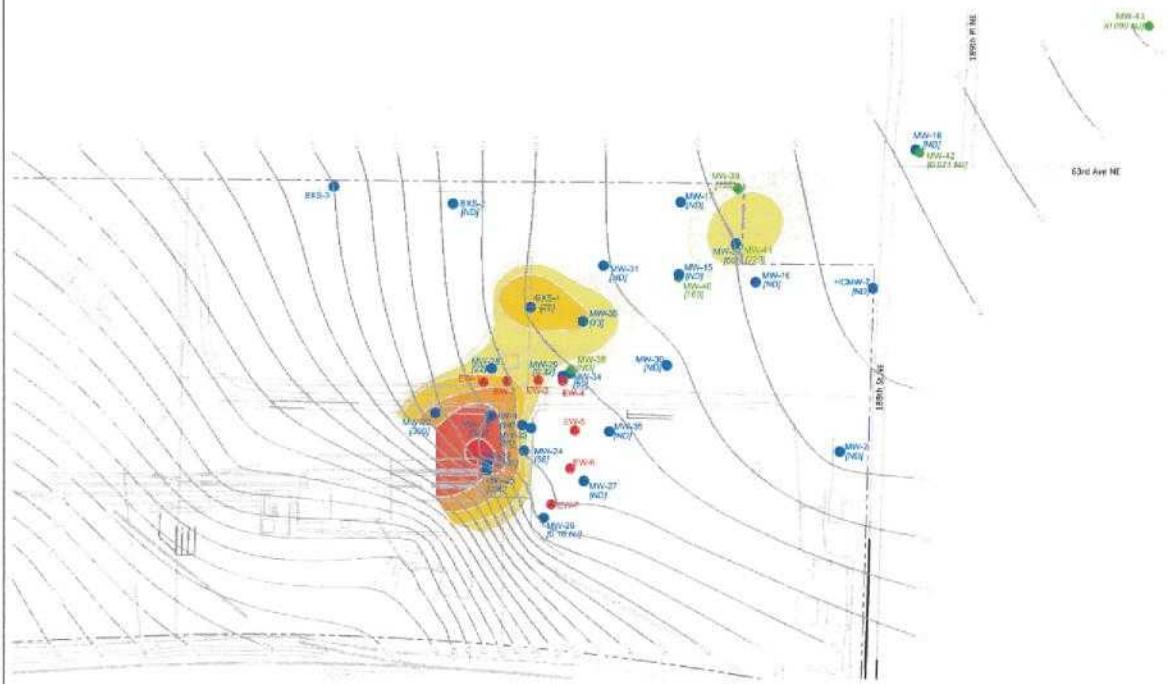
MAP NOTES:

Date: February 20, 2015
Data Sources: Premier Environmental Services, Inc., EarthCon, AMEC, Figures 20-23, 03/13/2014

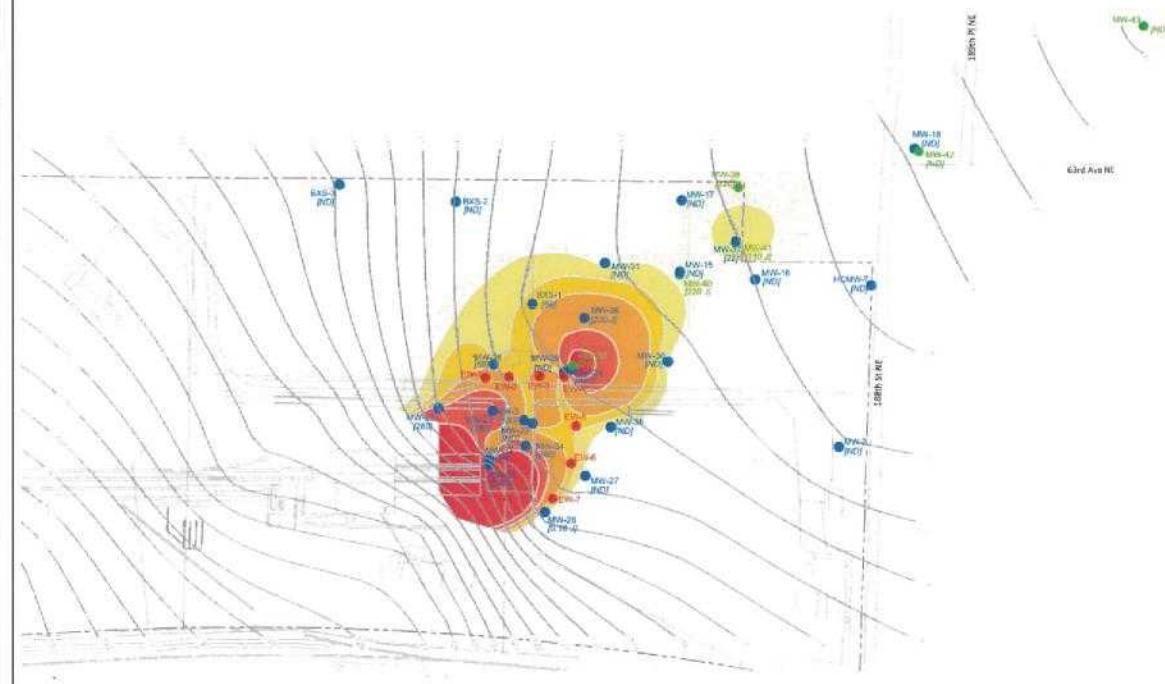




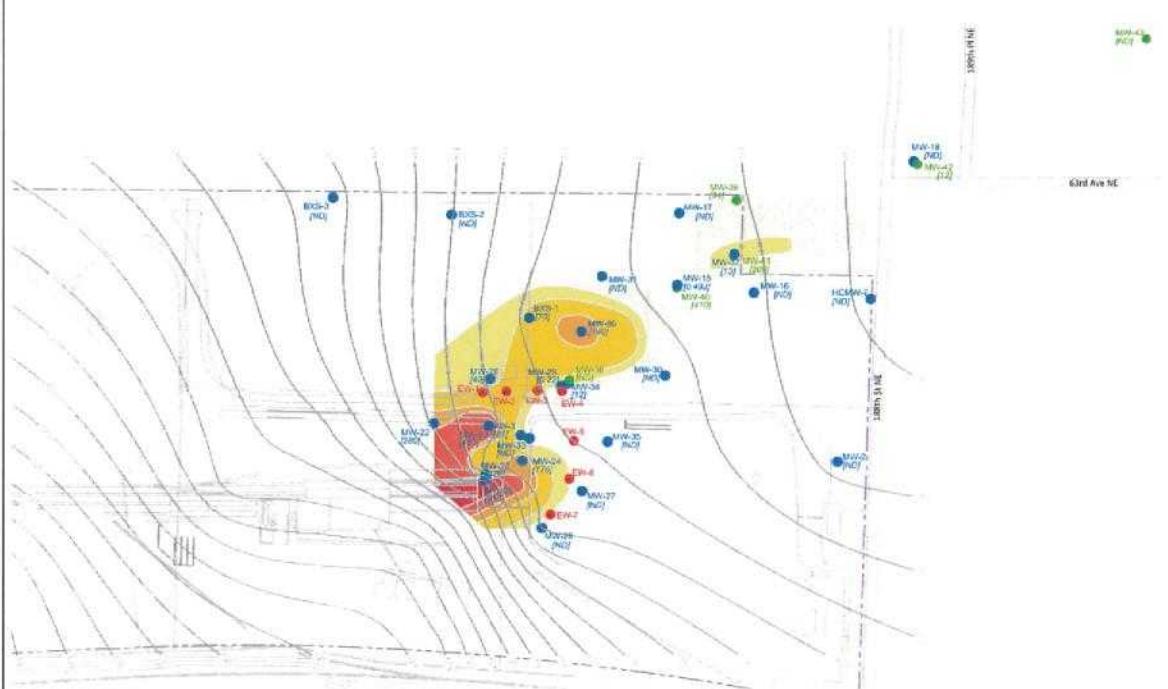
FEBRUARY 2012



MAY 2012



AUGUST 2012



NOVEMBER 2012

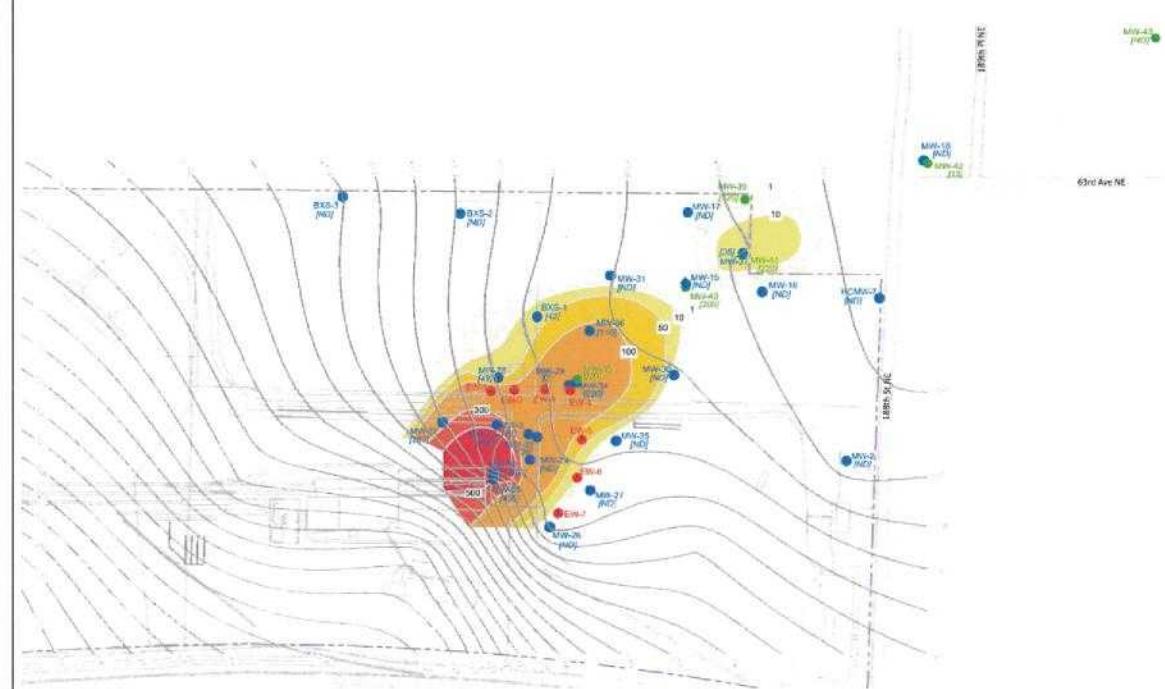


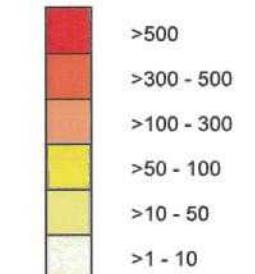
FIGURE 12

Pentachlorophenol Isopleth Map: 2012
Former J.H. Baxter Wood Treating Facility
Arlington, Washington

LEGEND

- Monitoring Well and Pentachlorophenol (PCP) Concentration (ug/L)
- Deep Monitoring Well and PCP Concentration (ug/L)
- ◆ LNAPL Recovery Well
- Groundwater Extraction Well
- Infiltration Gallery
- ND Not-Detected
- NA Not Analyzed
- 107 Groundwater Elevation Isopleth

Pentachlorophenol Concentration (ug/L)

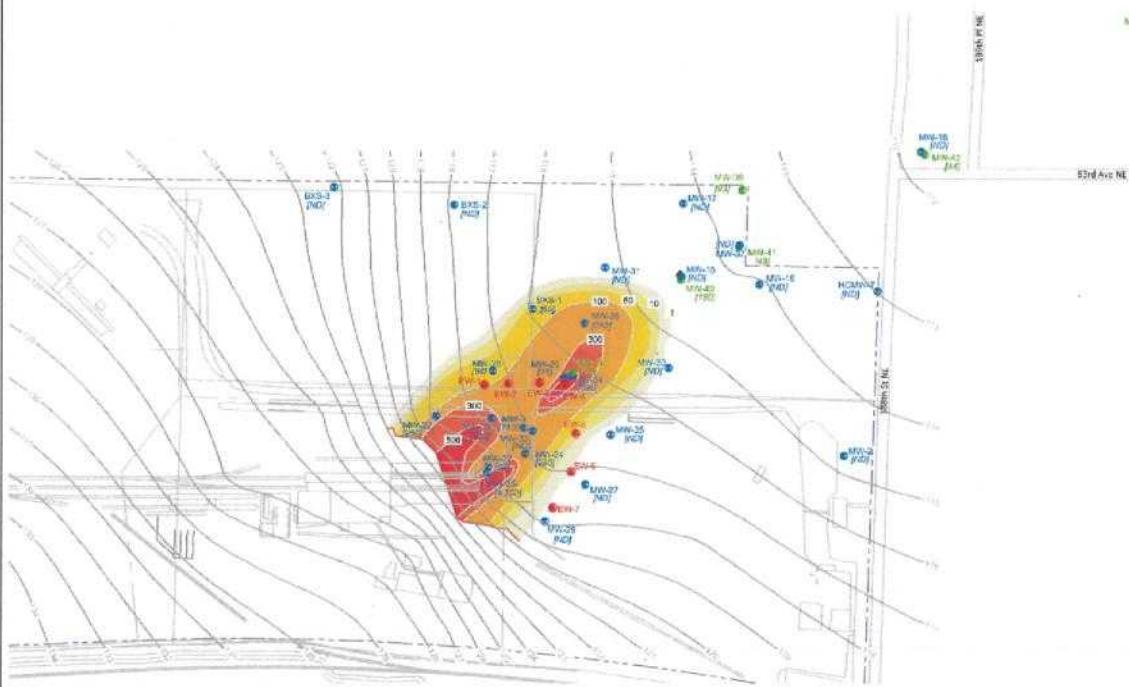


0 150 300 450
Feet

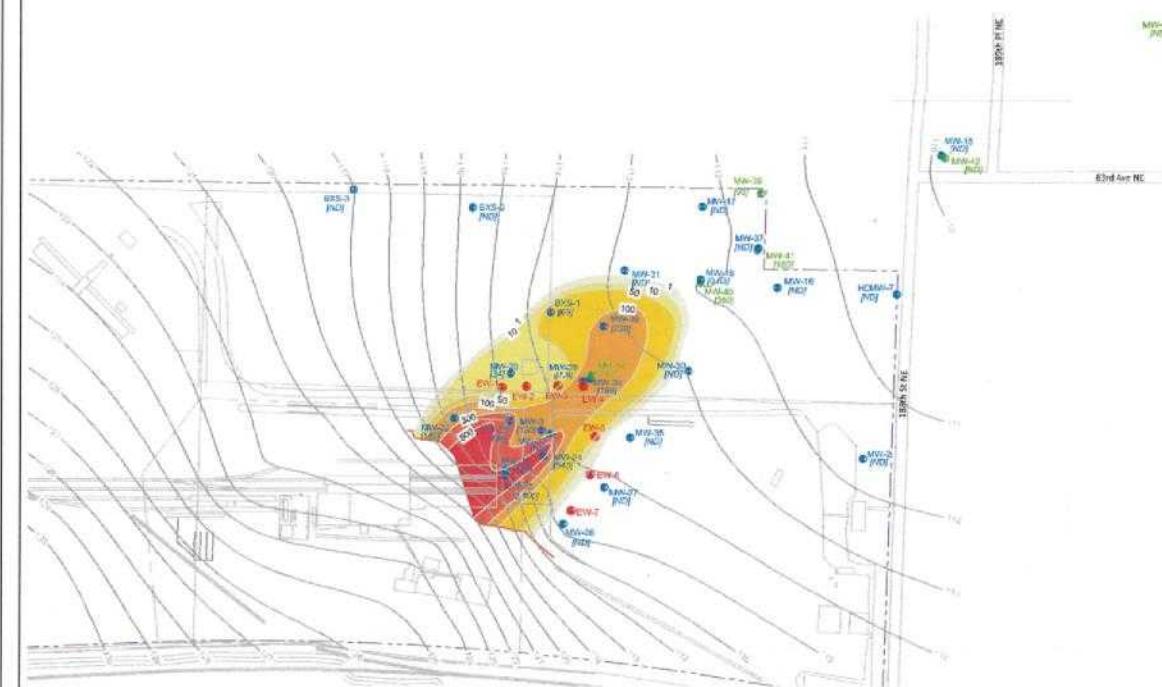


MAP NOTES:
Date: February 20, 2015
Data Sources: AMEC, Figures 24-27,
March 2014

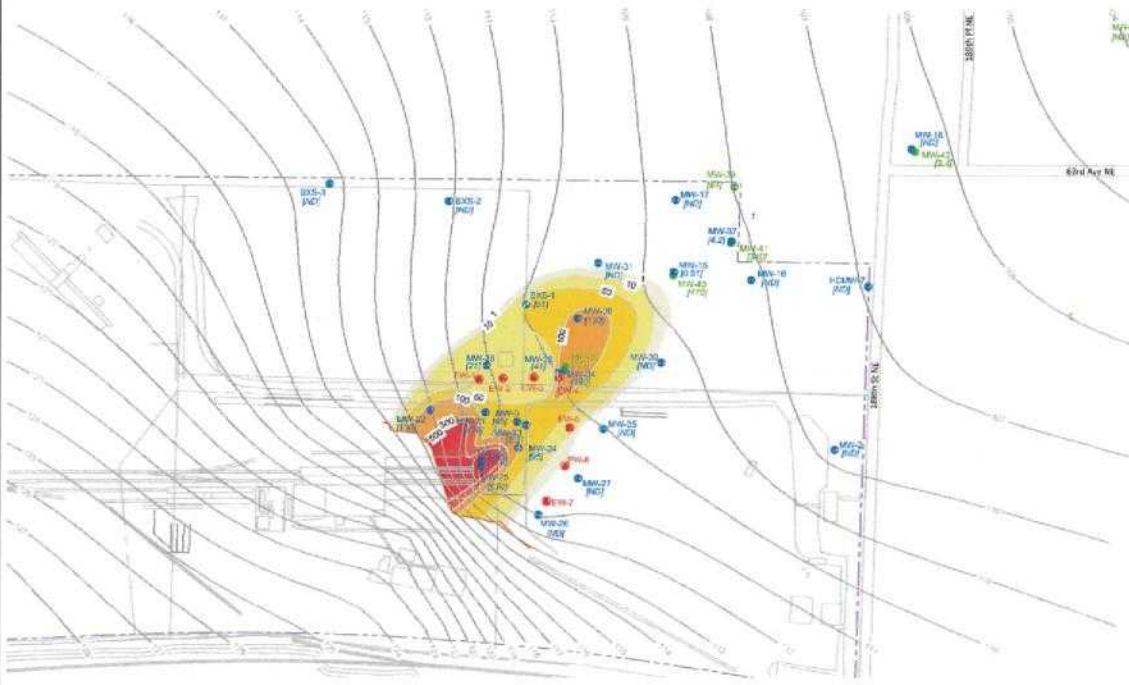
FEBRUARY 2013



JUNE 2013



AUGUST 2013



DECEMBER 2013

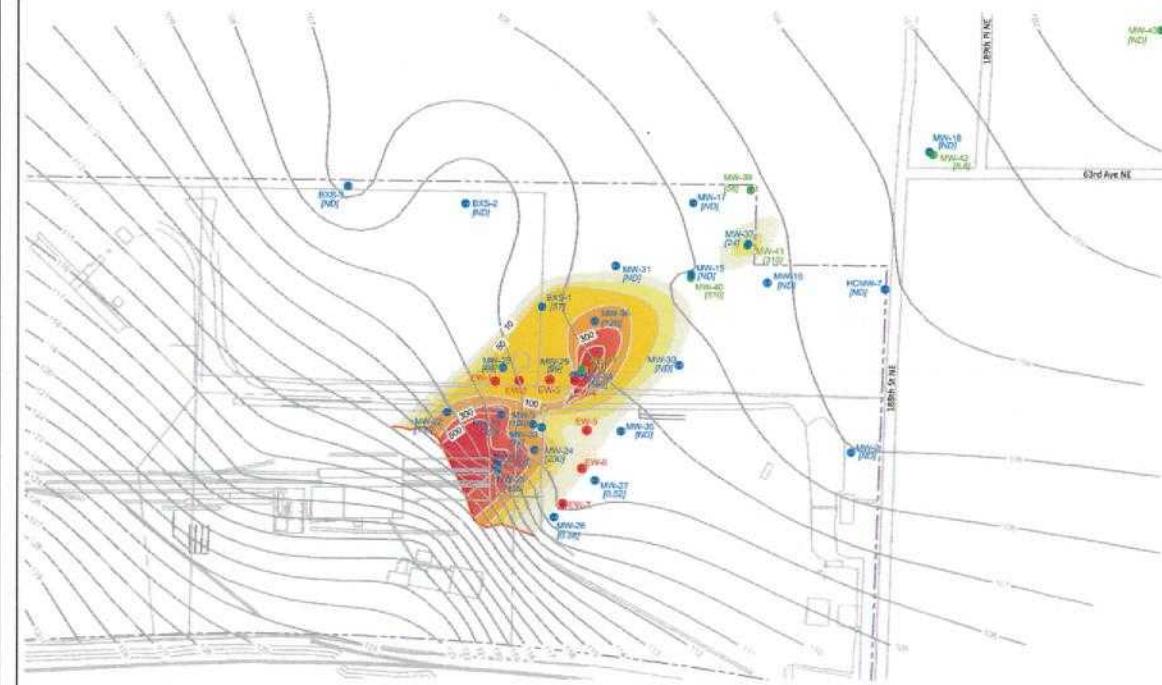


FIGURE 13

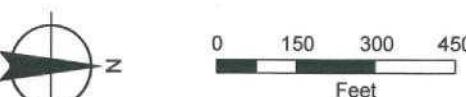
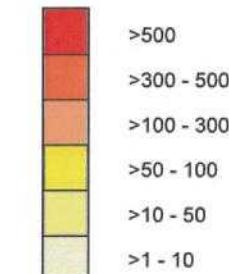
Pentachlorophenol Isopleth Map: 2013
Former J.H. Baxter Wood Treating Facility
Arlington, Washington

LEGEND

- Monitoring Well and Pentachlorophenol (PCP) Concentration (ug/L)
- Deep Monitoring Well and PCP Concentration (ug/L)
- ◆ LNAPL Recovery Well
- Groundwater Extraction Well
- Infiltration Gallery
- ND Not-Detected
- NA Not Analyzed

- 107—Groundwater Elevation Isopleth

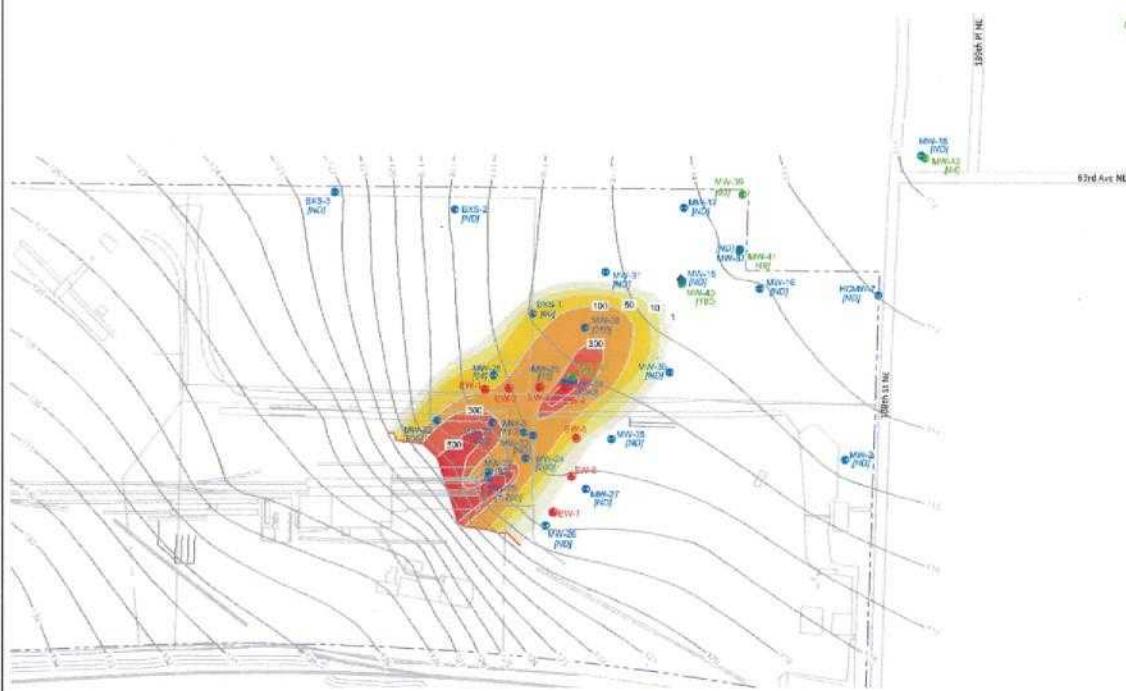
Pentachlorophenol Concentration (ug/L)



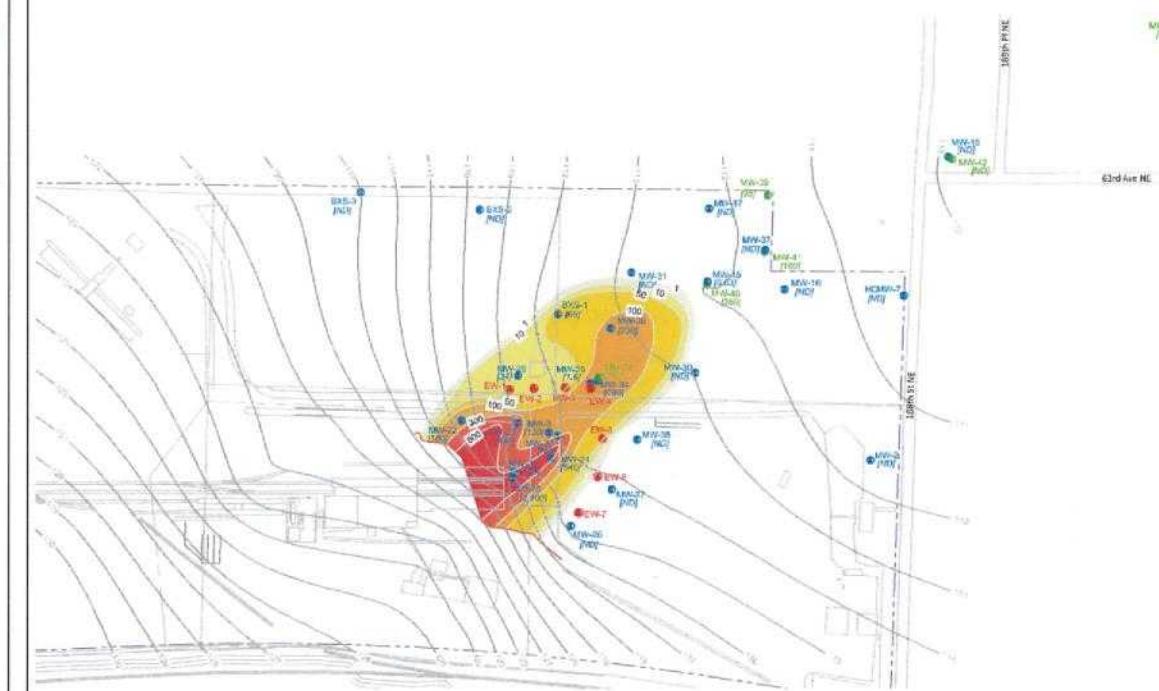
MAP NOTES:
Date: February 20, 2015
Data Sources: AMEC, Figures 28-31,
March 2014



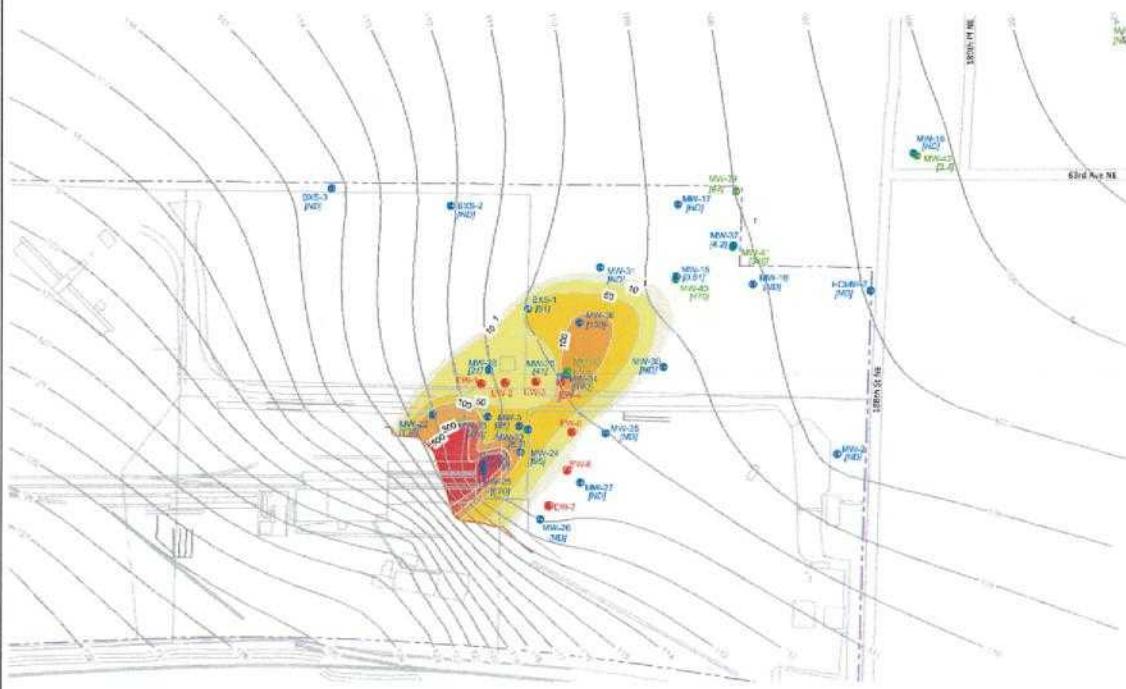
FEBRUARY 2013



JUNE 2013



AUGUST 2013



DECEMBER 2013

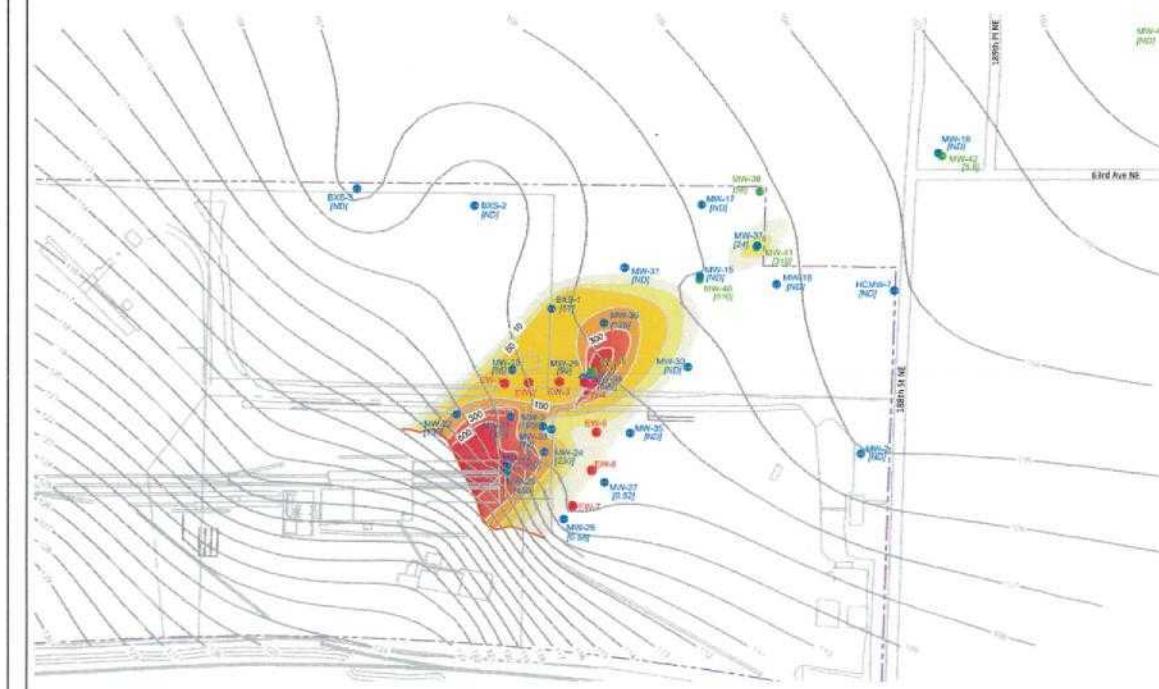


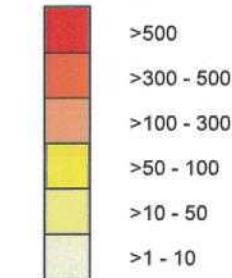
FIGURE 13

Pentachlorophenol Isopleth Map: 2013
Former J.H. Baxter Wood Treating Facility
Arlington, Washington

LEGEND

- Monitoring Well and Pentachlorophenol (PCP) Concentration (ug/L)
- Deep Monitoring Well and PCP Concentration (ug/L)
- ◆ LNAPL Recovery Well
- ◎ Groundwater Extraction Well
- Infiltration Gallery
- ND Not-Detected
- NA Not Analyzed
- 107 - Groundwater Elevation Isopleth

Pentachlorophenol Concentration (ug/L)

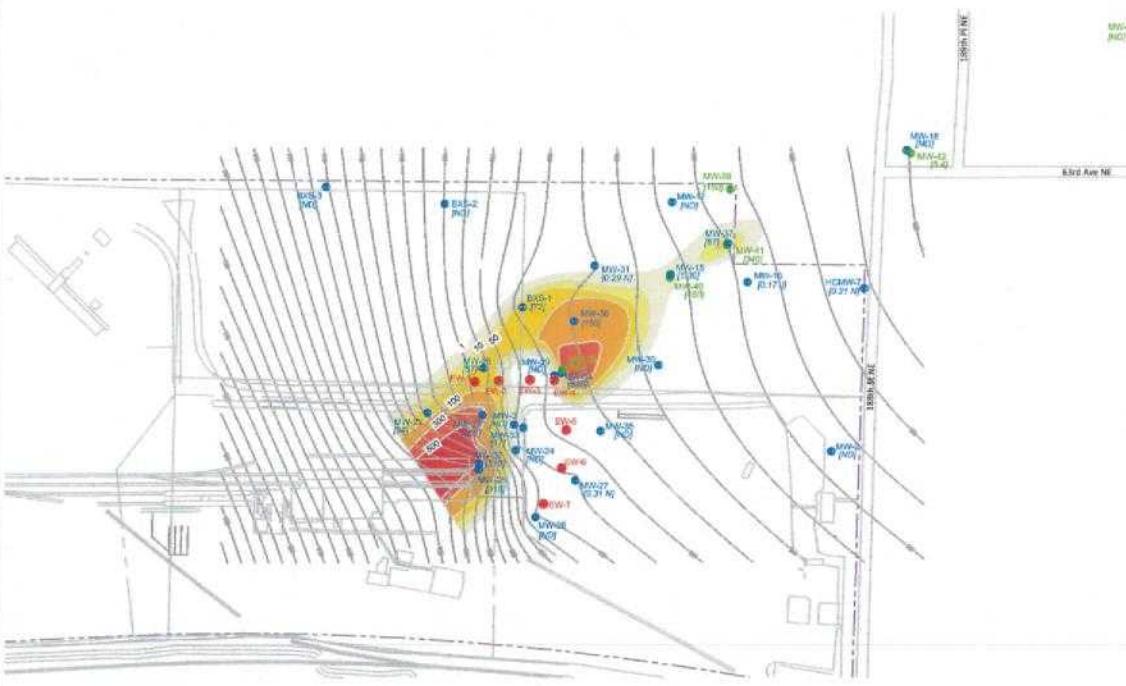


MAP NOTES:

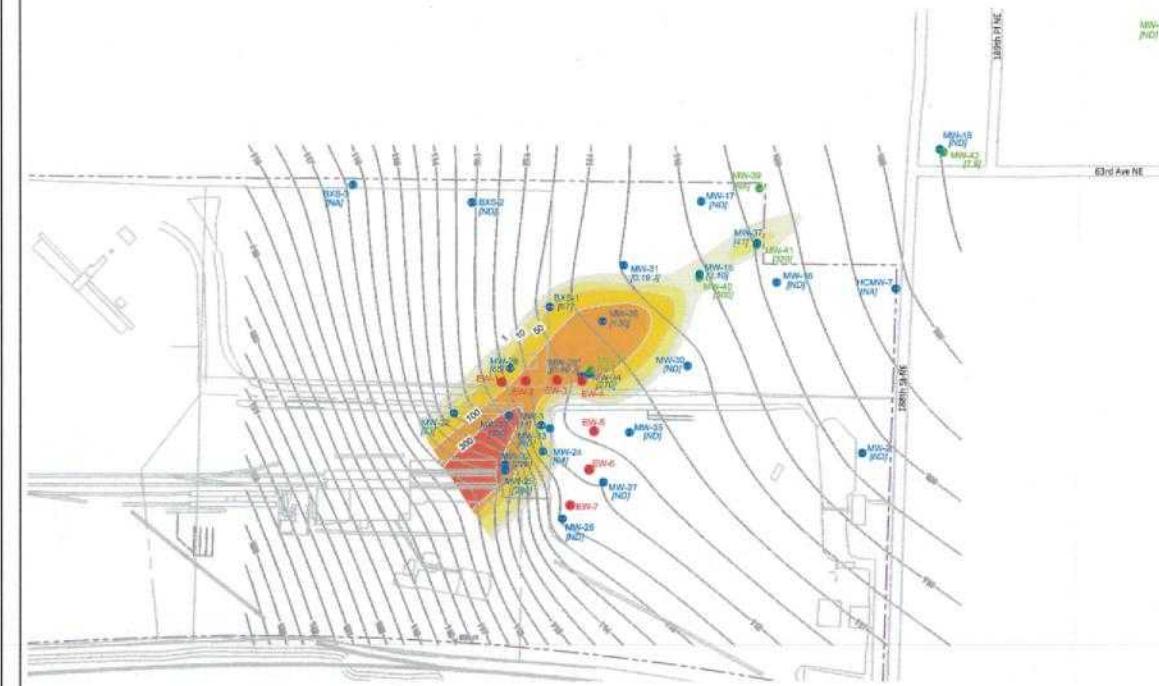
Date: February 20, 2015
Data Sources: AMEC, Figures 28-31,
March 2014



MARCH 2014



JUNE 2014



SEPTEMBER 2014

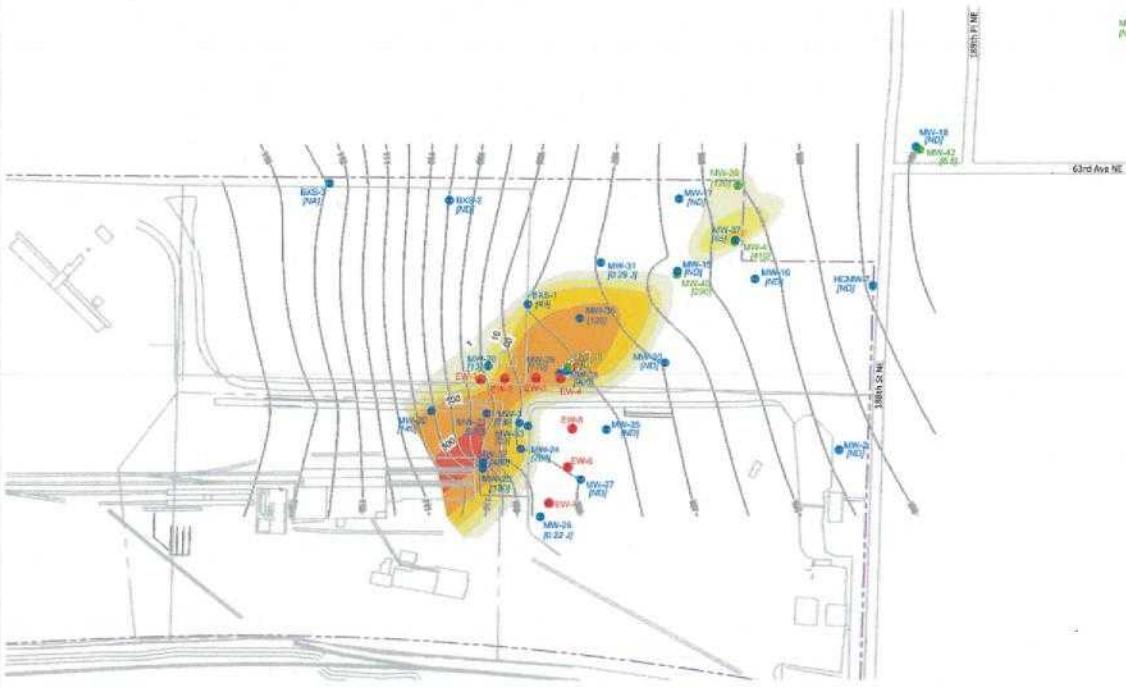


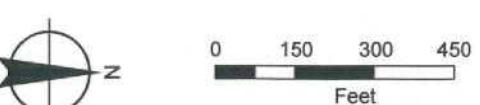
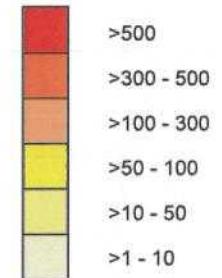
FIGURE 14

Pentachlorophenol Isopleth Map: 2014
Former J.H. Baxter Wood Treating Facility
Arlington, Washington

LEGEND

- Monitoring Well and Pentachlorophenol (PCP) Concentration (ug/L)
- Deep Monitoring Well and PCP Concentration (ug/L)
- ◆ LNAPE Recovery Well
- ◎ Groundwater Extraction Well
- Infiltration Gallery
- ND Not-Detected
- NA Not Analyzed
- 107 - Groundwater Elevation Isopleth

Pentachlorophenol Concentration (ug/L)



MAP NOTES:

Date: February 20, 2015
Data Sources: AMEC, Figures 32-34,
March 2014





FIGURE 15

Pentachlorophenol Isopleth Map:
Fourth Quarter 2014

Former J.H. Baxter Wood Treating Facility
Arlington, Washington

LEGEND

Monitoring Well and Pentachlorophenol (PCP) Concentration (ug/L) November 2014

Pentachlorophenol Concentrations (ug/L)

>100

>50 - 100

>10 - 50

>1 - 10

All Other Features

Extraction Well

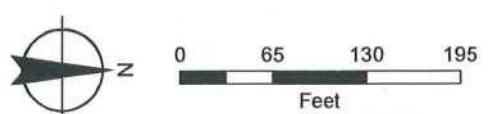
Infiltration Gallery Piping

Infiltration Trench

Groundwater Elevation Contours (dashed where inferred)

NOTES:

- Results in ug/L (microgram per liter)
- All elevations exist in NAVD88.
- Groundwater elevation measured at MW-16 not included in contours.
- Abbreviations:
 - J Estimated Value
 - NA Not Analyzed
 - ND Not-Detected

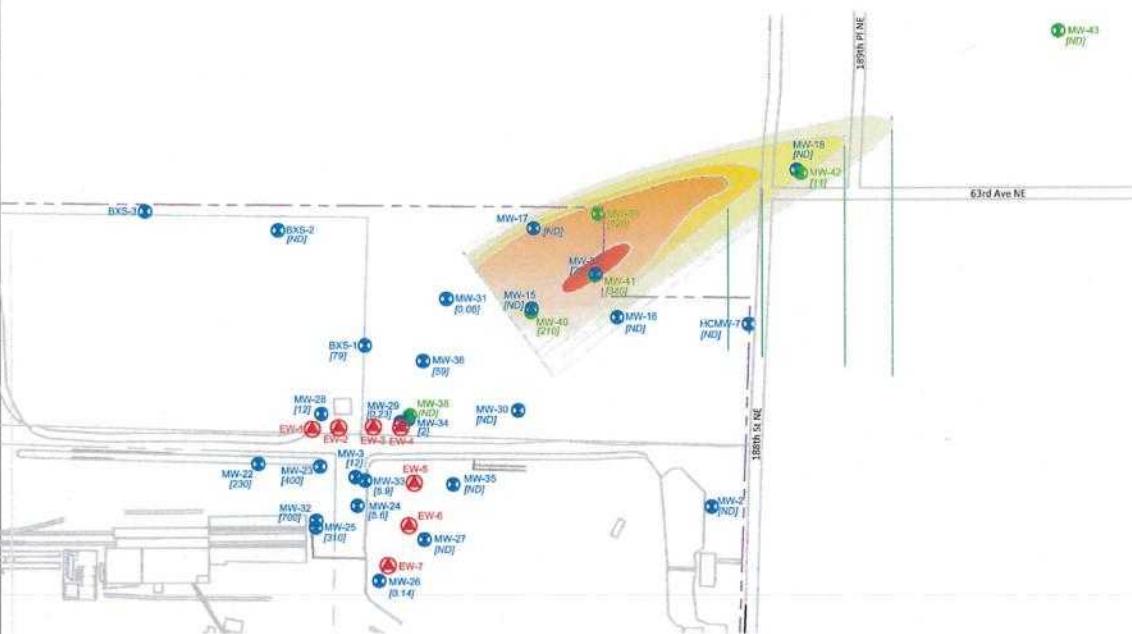


MAP NOTES:

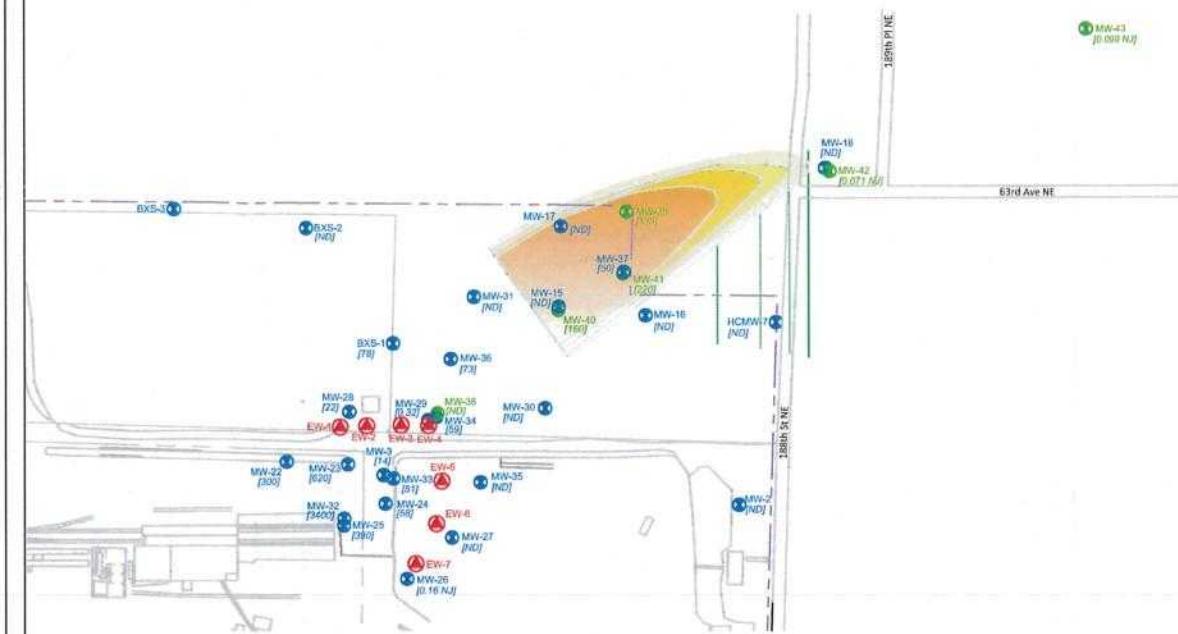
Date: March 12, 2015
Data Sources: AMEC, ESRI, Air photo taken on July 9, 2010 by Microsoft



NOVEMBER 2011



FEBRUARY 2012



MAY 2012

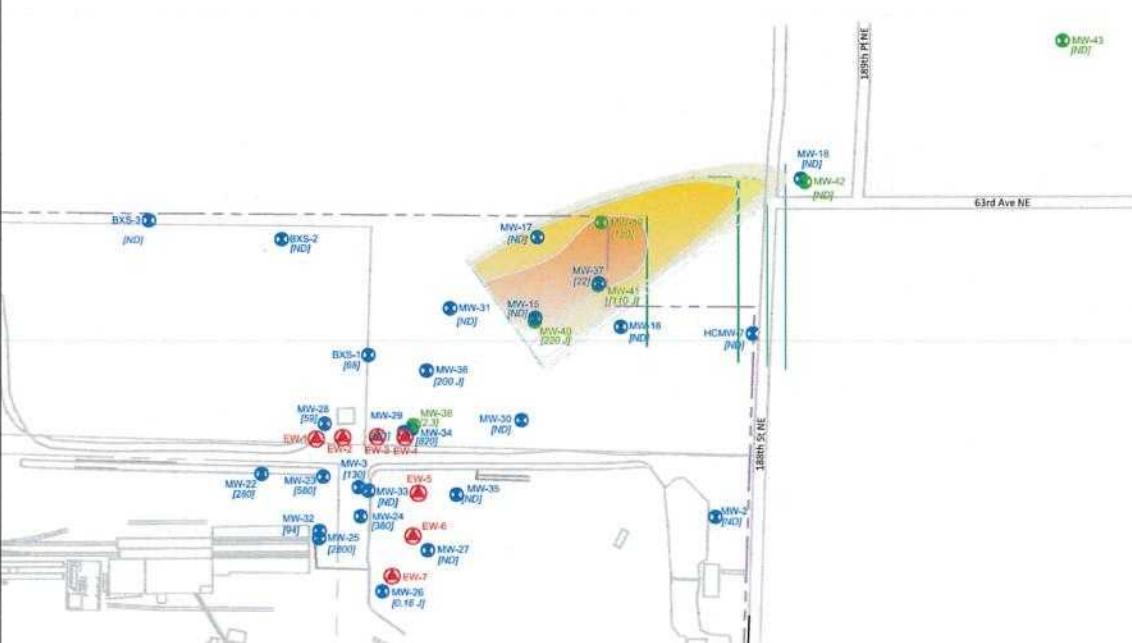


FIGURE 16

Pentachlorophenol Isopleth Map, Deep Zone:

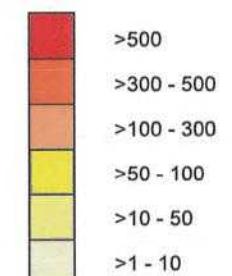
Fourth Quarter 2011 - Second Quarter 2012

Former J.H. Baxter Wood Treating Facility
Arlington, Washington

LEGEND

- Monitoring Well and Pentachlorophenol (PCP) Concentration (ug/L)
- Deep Monitoring Well and PCP Concentration (ug/L)
- Groundwater Extraction Well
- Site Boundary
- ND Not-Detected
- NA Not Analyzed

Pentachlorophenol Concentration (ug/L)



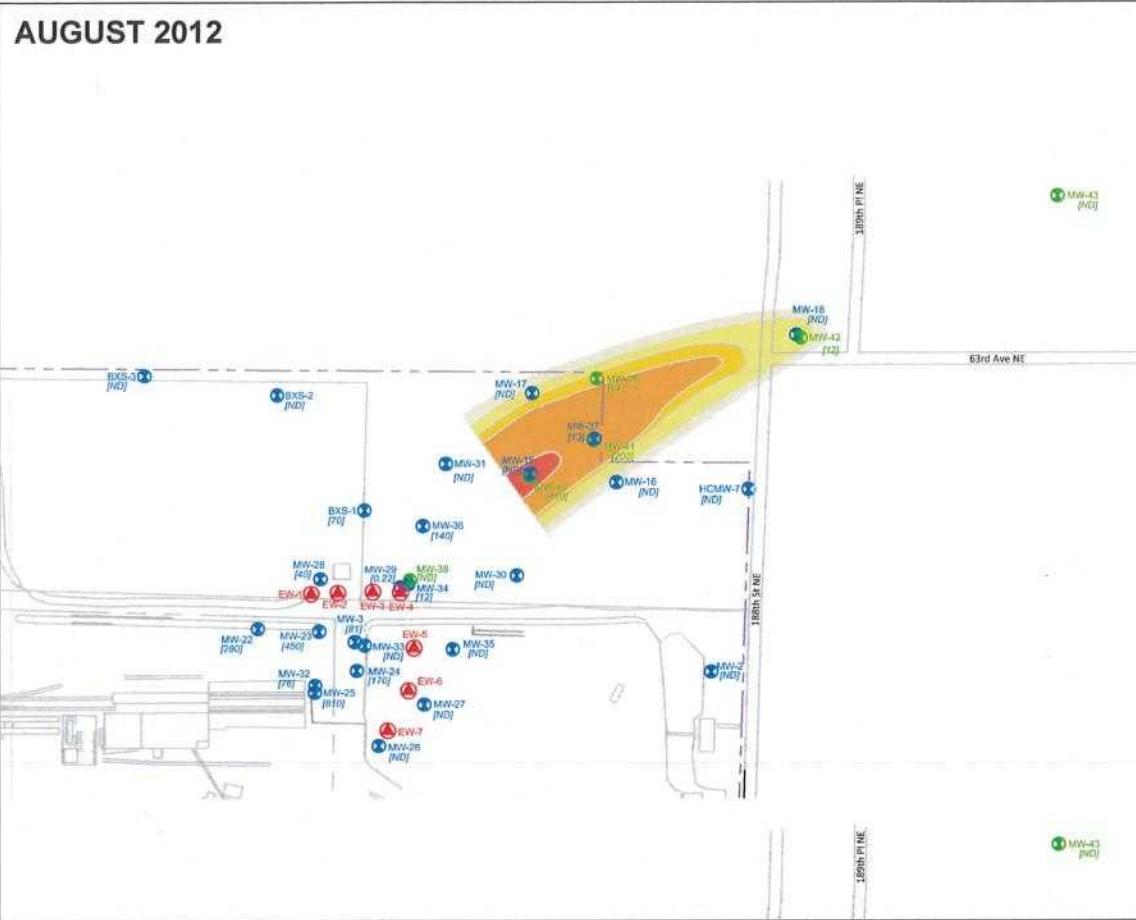
0 175 250 325
Feet



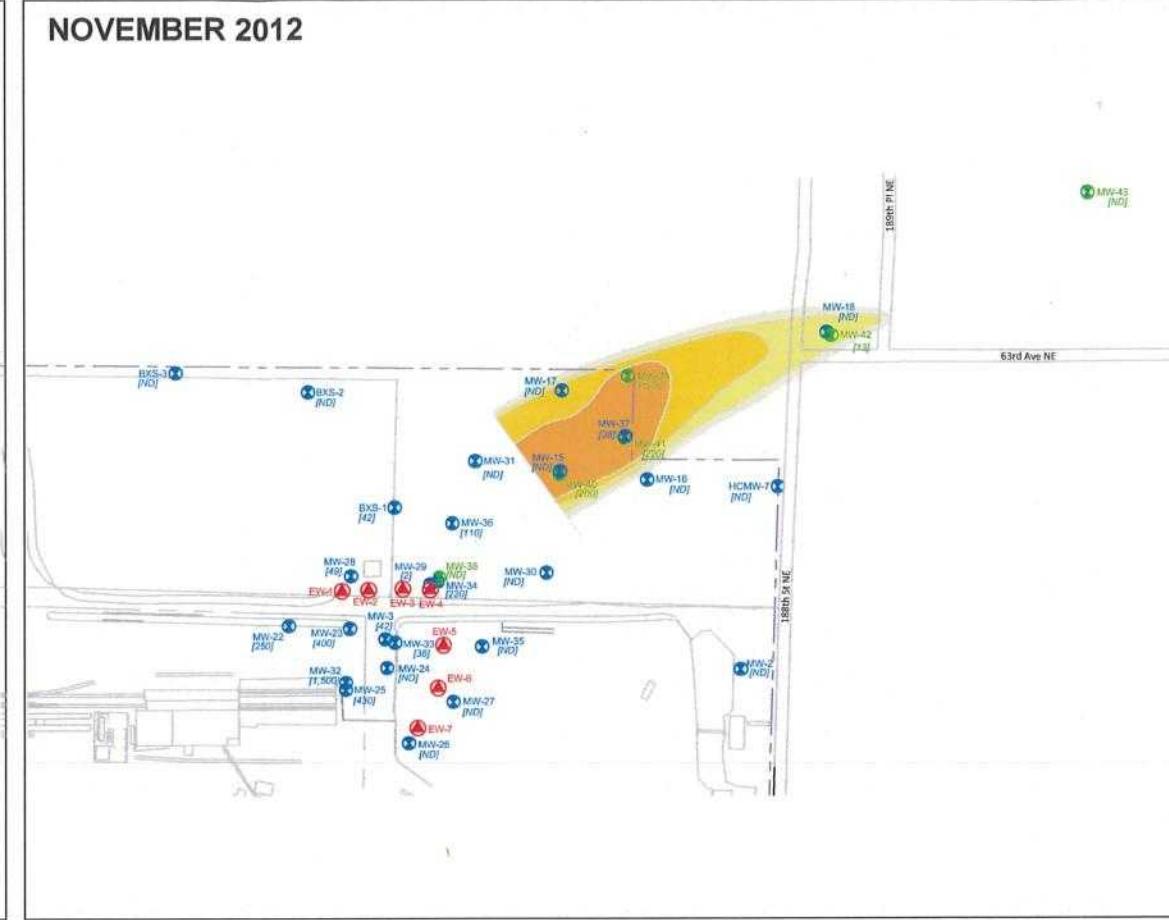
MAP NOTES:

Date: February 20, 2015
Data Sources: AMEC, Figure 35, August 2014

AUGUST 2012



NOVEMBER 2012



FEBRUARY 2013

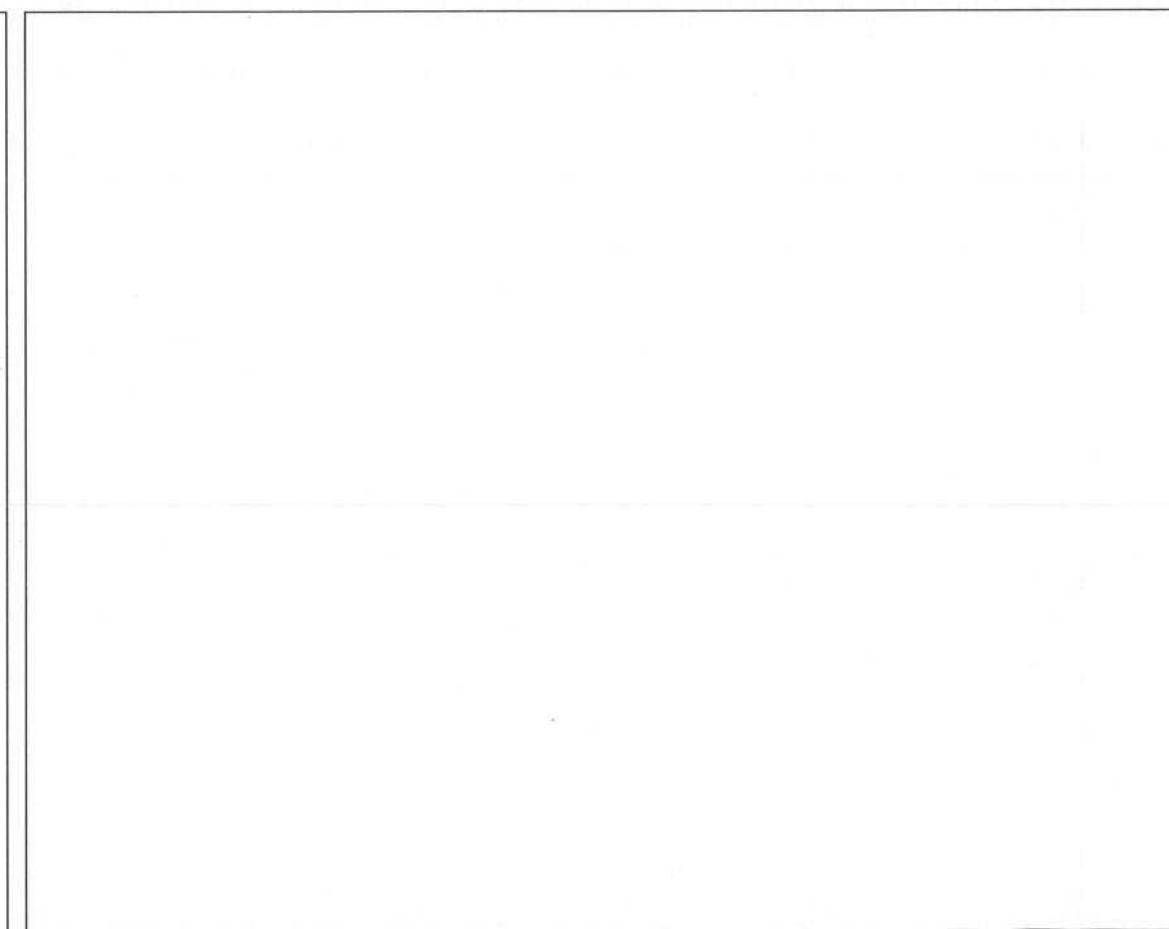
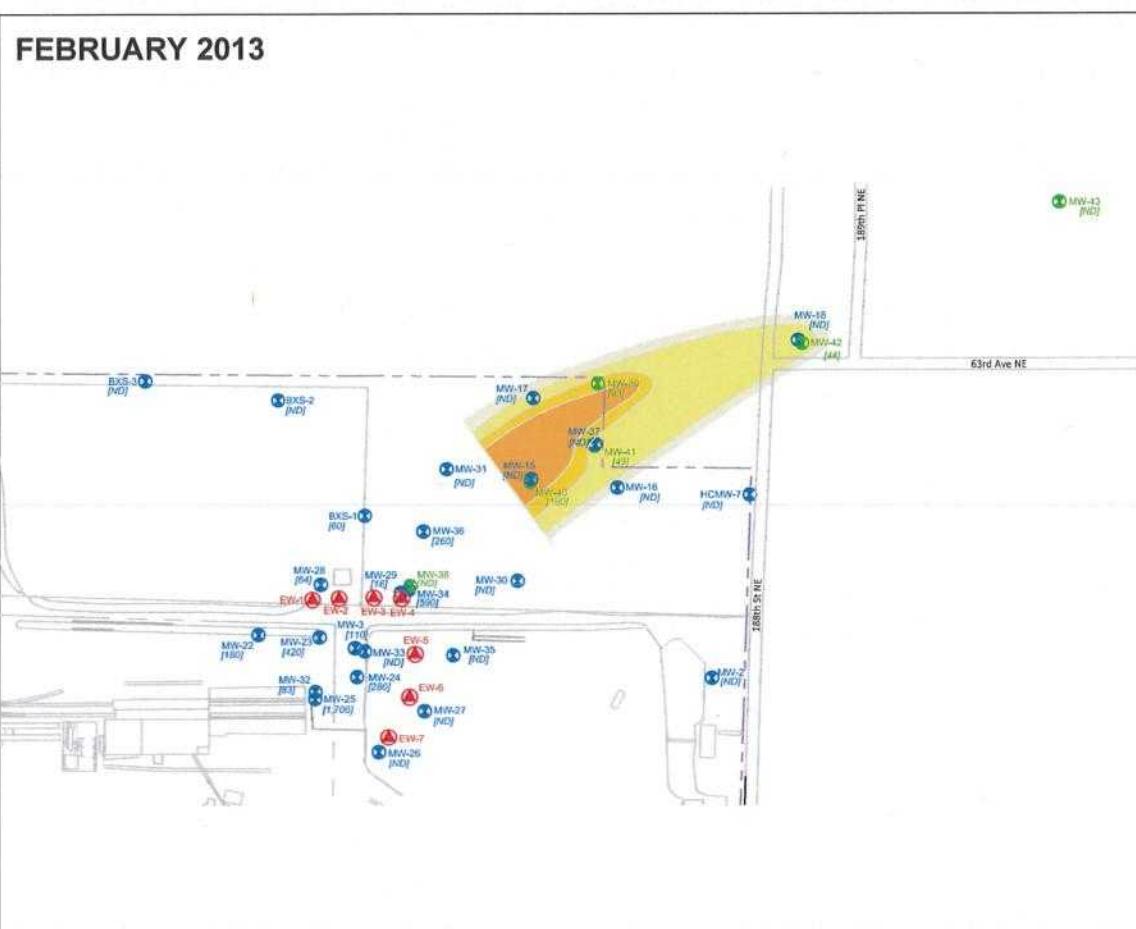


FIGURE 17

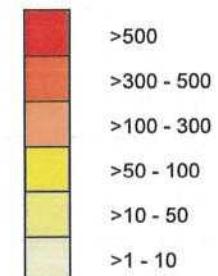
Pentachlorophenol Isopleth Map, Deep Zone:
Third Quarter 2012 - First Quarter 2013

Former J.H. Baxter Wood Treating Facility
Arlington, Washington

LEGEND

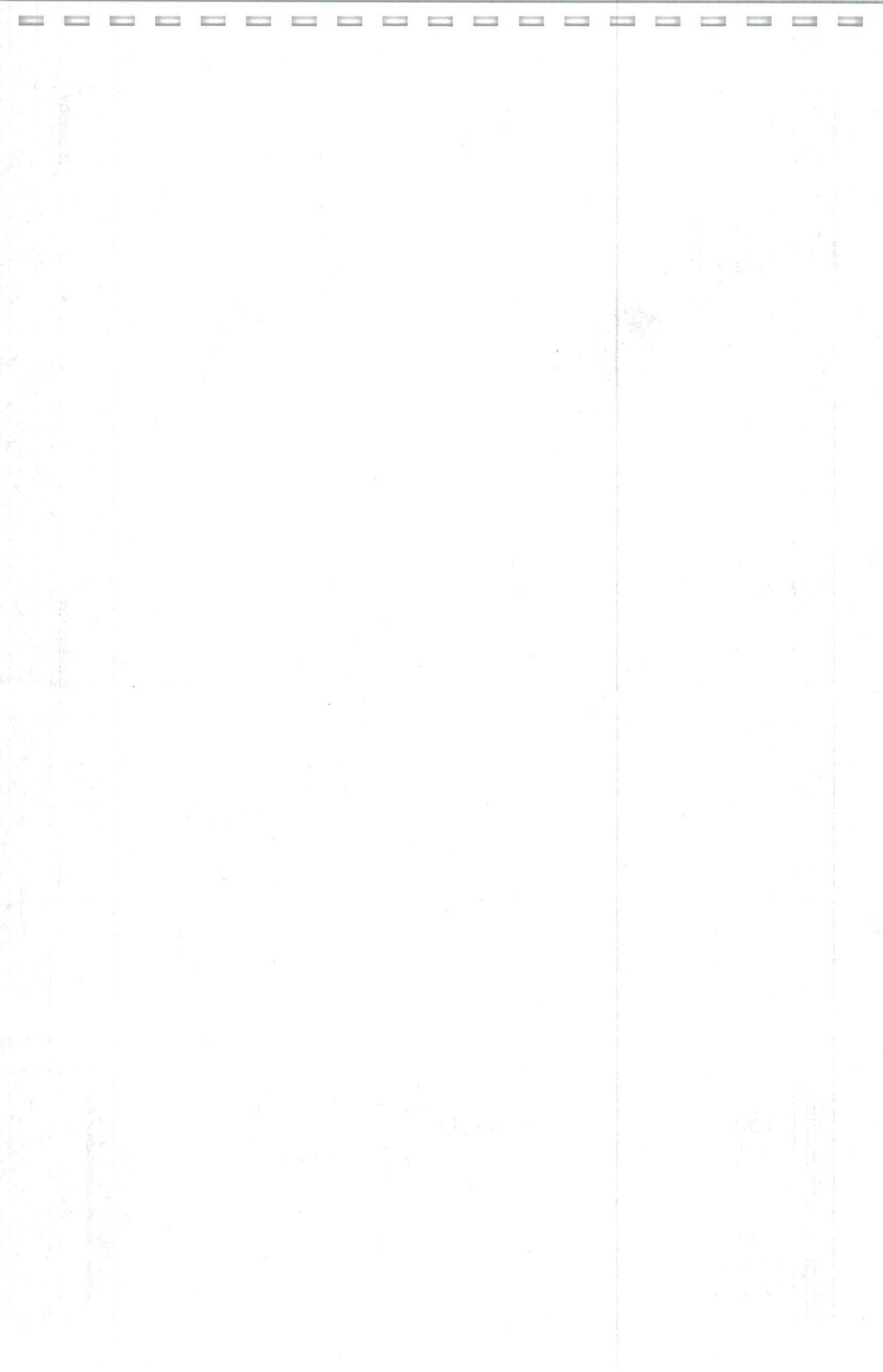
- Monitoring Well and Pentachlorophenol (PCP) Concentration (ug/L)
- Deep Monitoring Well and PCP Concentration (ug/L)
- △ Groundwater Extraction Well
- Site Boundary
- ND Not-Detected
- NA Not Analyzed

Pentachlorophenol Concentration (ug/L)



MAP NOTES:
Date: February 20, 2015
Data Sources: AMEC, Figure 35,
August 2014





JUNE 2013



AUGUST 2013



DECEMBER 2013

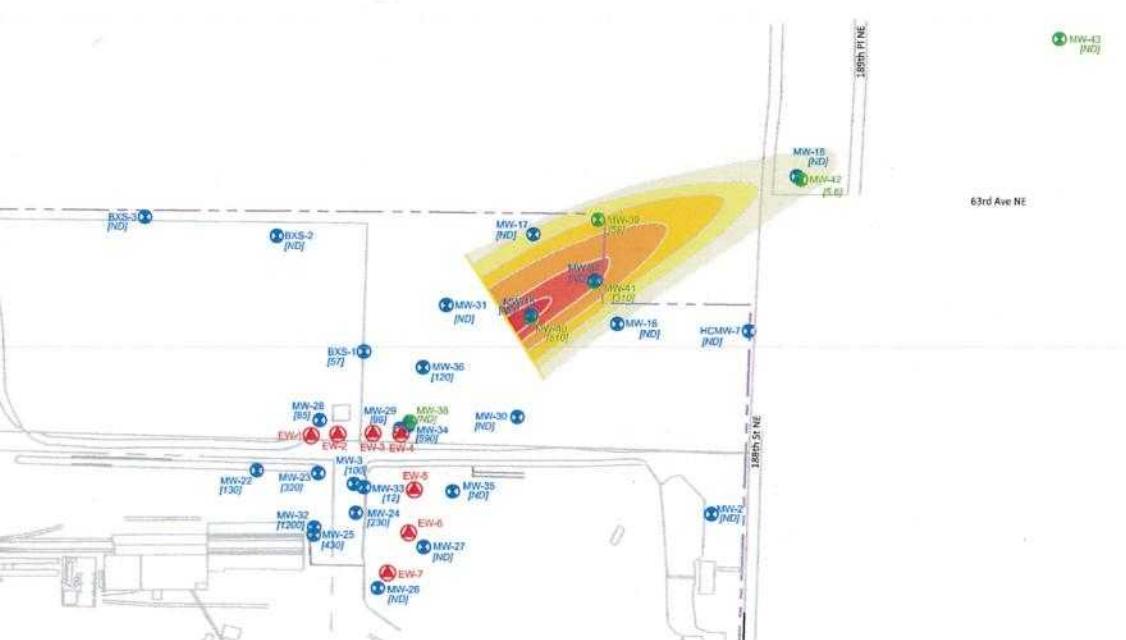


FIGURE 18

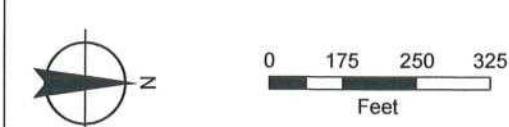
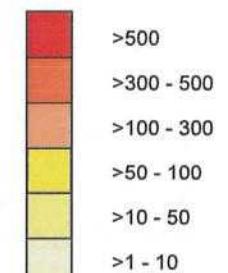
Pentachlorophenol Isopleth Map, Deep Zone:
Second Quarter 2013 - Fourth Quarter 2013

Former J.H. Baxter Wood Treating Facility
Arlington, Washington

LEGEND

- Monitoring Well and Pentachlorophenol (PCP) Concentration (ug/L)
- Deep Monitoring Well and PCP Concentration (ug/L)
- Groundwater Extraction Well
- Site Boundary
- ND Not-Detected
- NA Not Analyzed

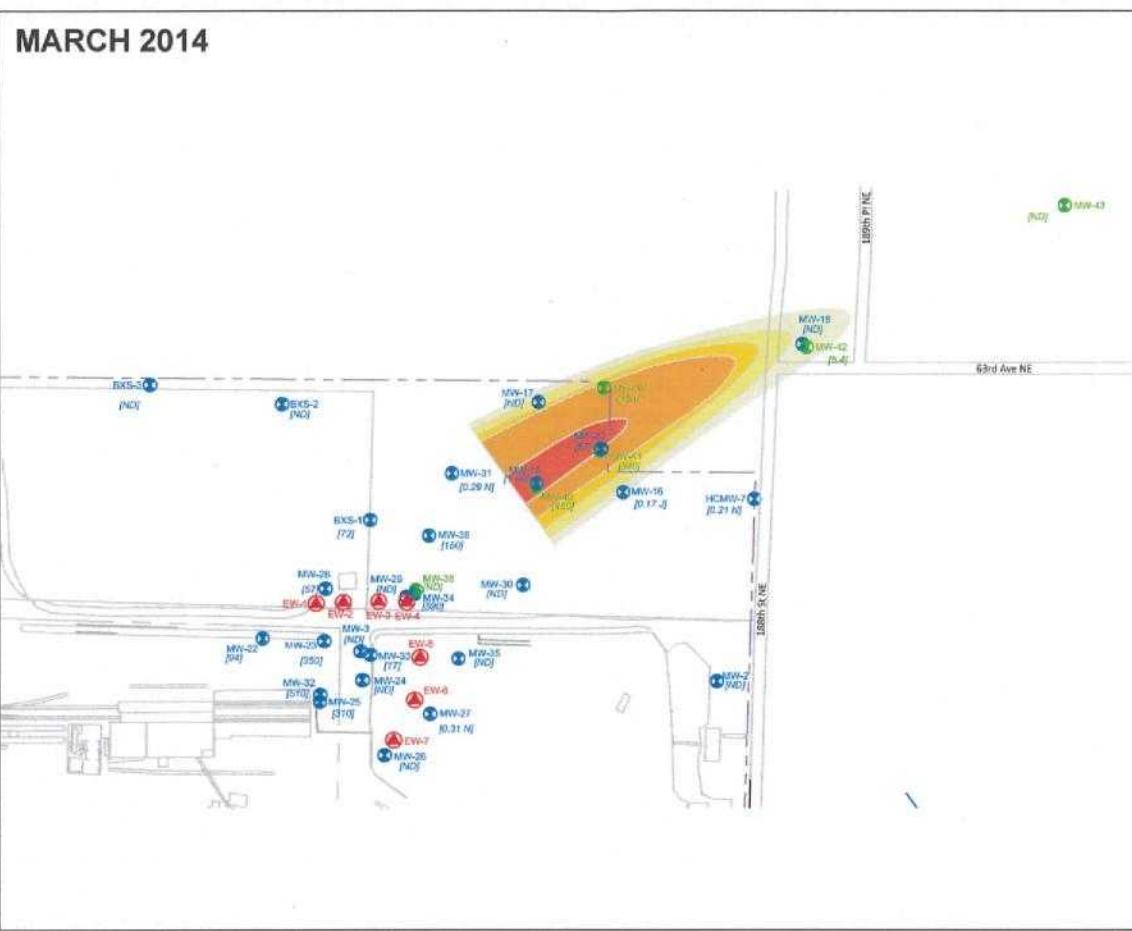
Pentachlorophenol Concentration (ug/L)



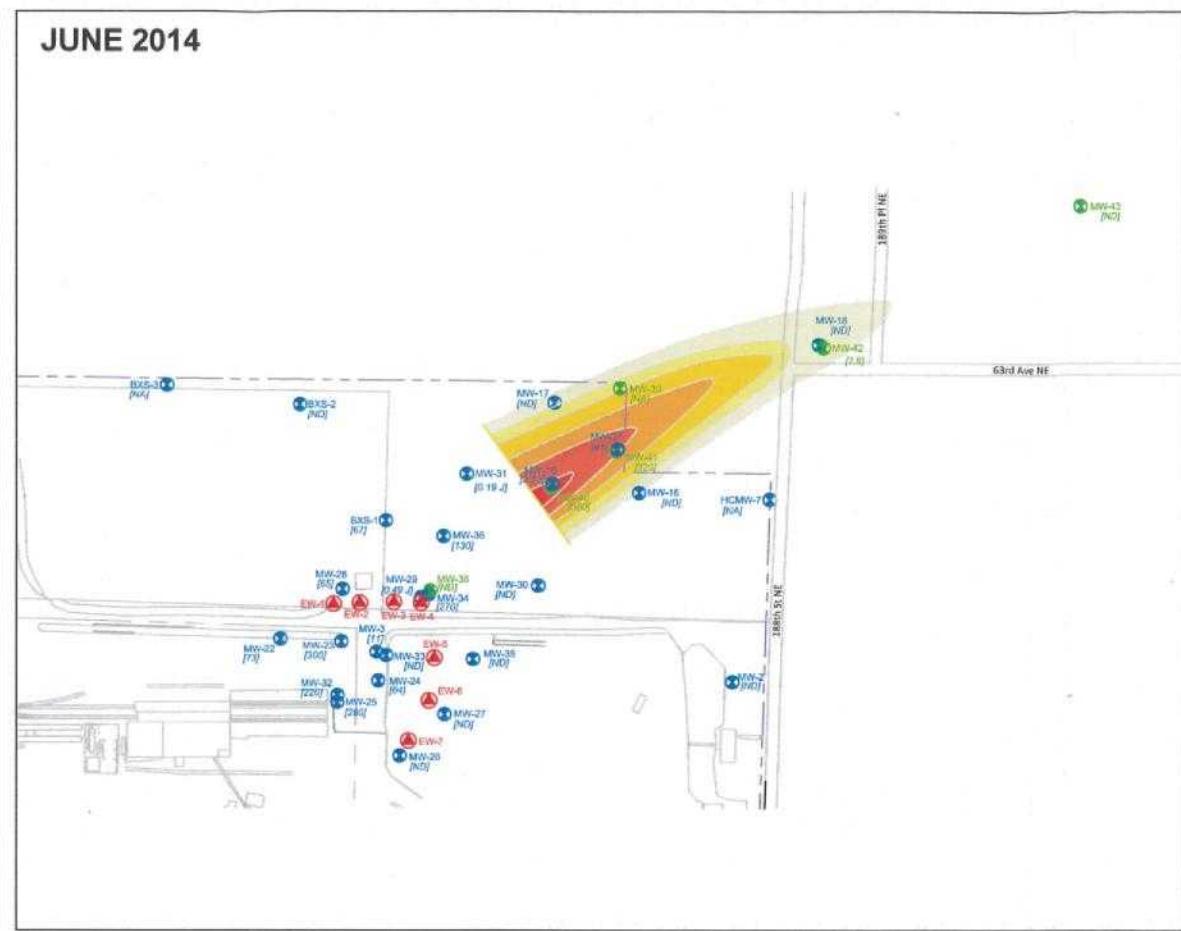
MAP NOTES:
Date: February 20, 2015
Data Sources: AMEC, Figure 35,
August 2014



MARCH 2014



JUNE 2014



SEPTEMBER 2014

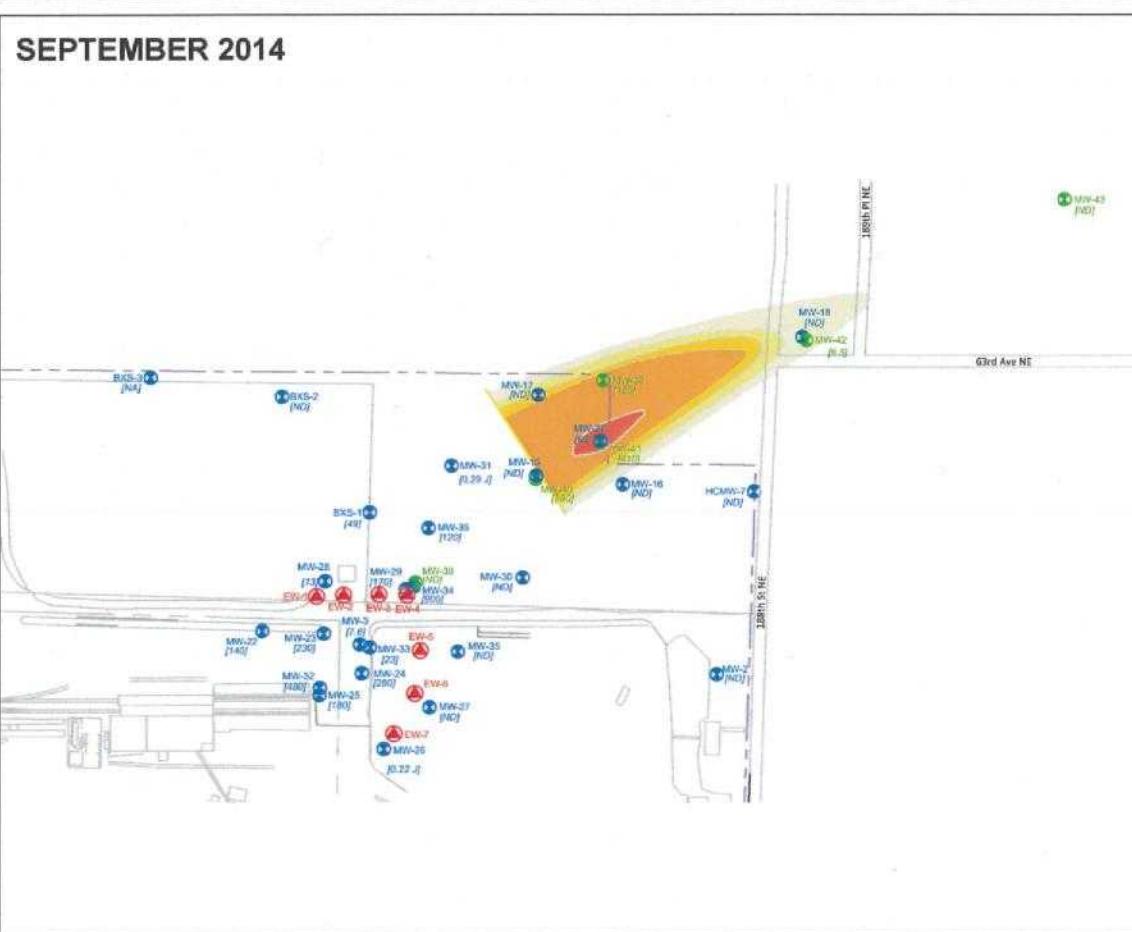


FIGURE 19

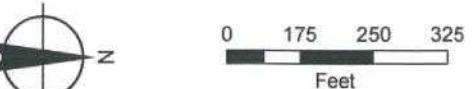
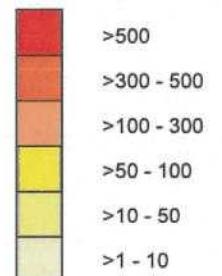
Pentachlorophenol Isopleth Map, Deep Zone:
First Quarter 2014 - Third Quarter 2014

Former J.H. Baxter Wood Treating Facility
Arlington, Washington

LEGEND

- Monitoring Well and Pentachlorophenol (PCP) Concentration (ug/L)
- Deep Monitoring Well and PCP Concentration (ug/L)
- Groundwater Extraction Well
- Site Boundary
- ND Not-Detected
- NA Not Analyzed

Pentachlorophenol Concentration (ug/L)



MAP NOTES:

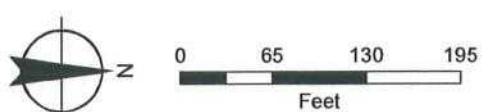
Date: March 6, 2015
Data Sources: AMEC, Figure 38,
August 2014

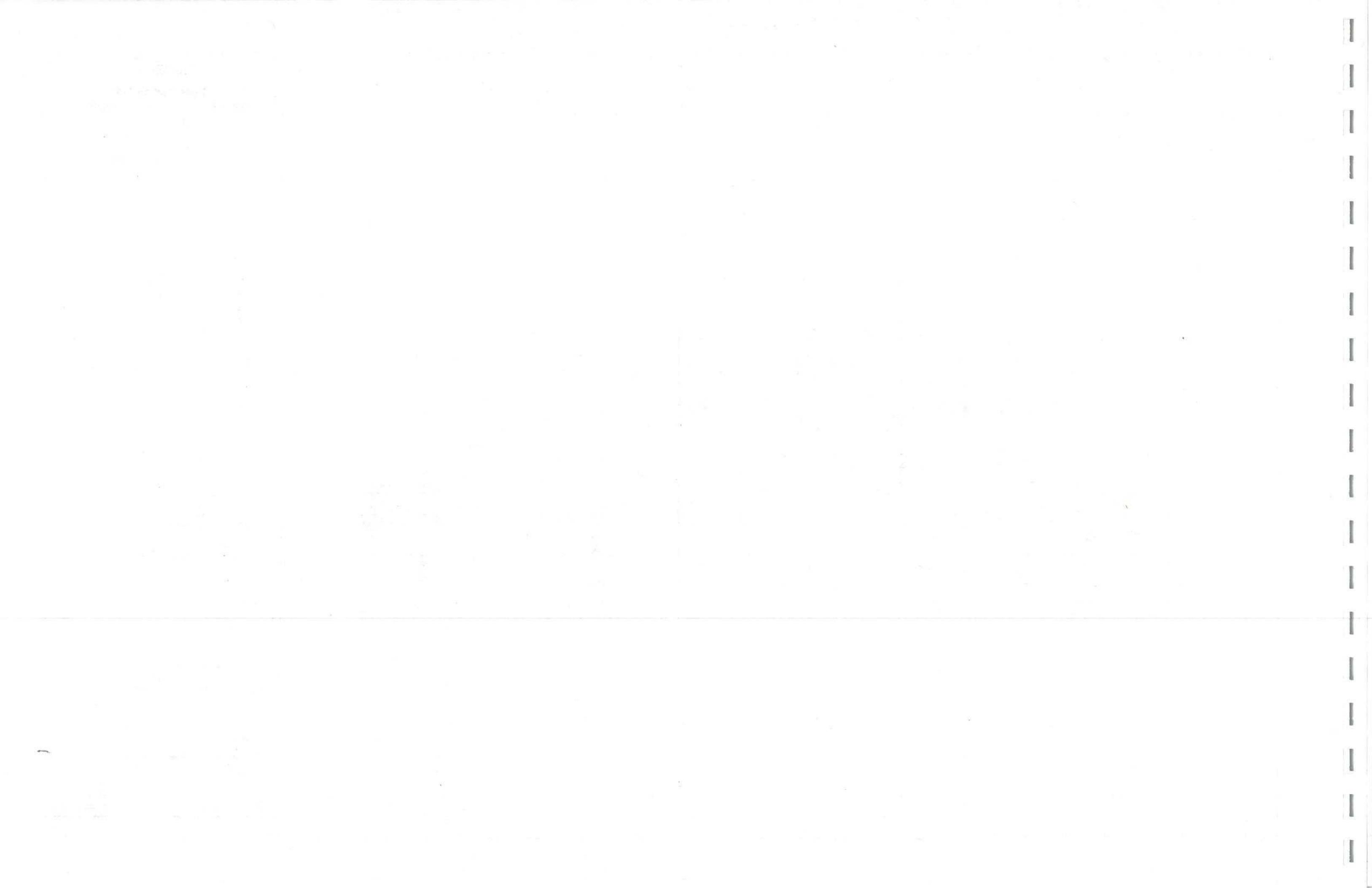




NOTES:

1. Results in ug/L (microgram per liter)
2. All elevations exist in NAVD88.
3. Abbreviations:
ND Not-Detected





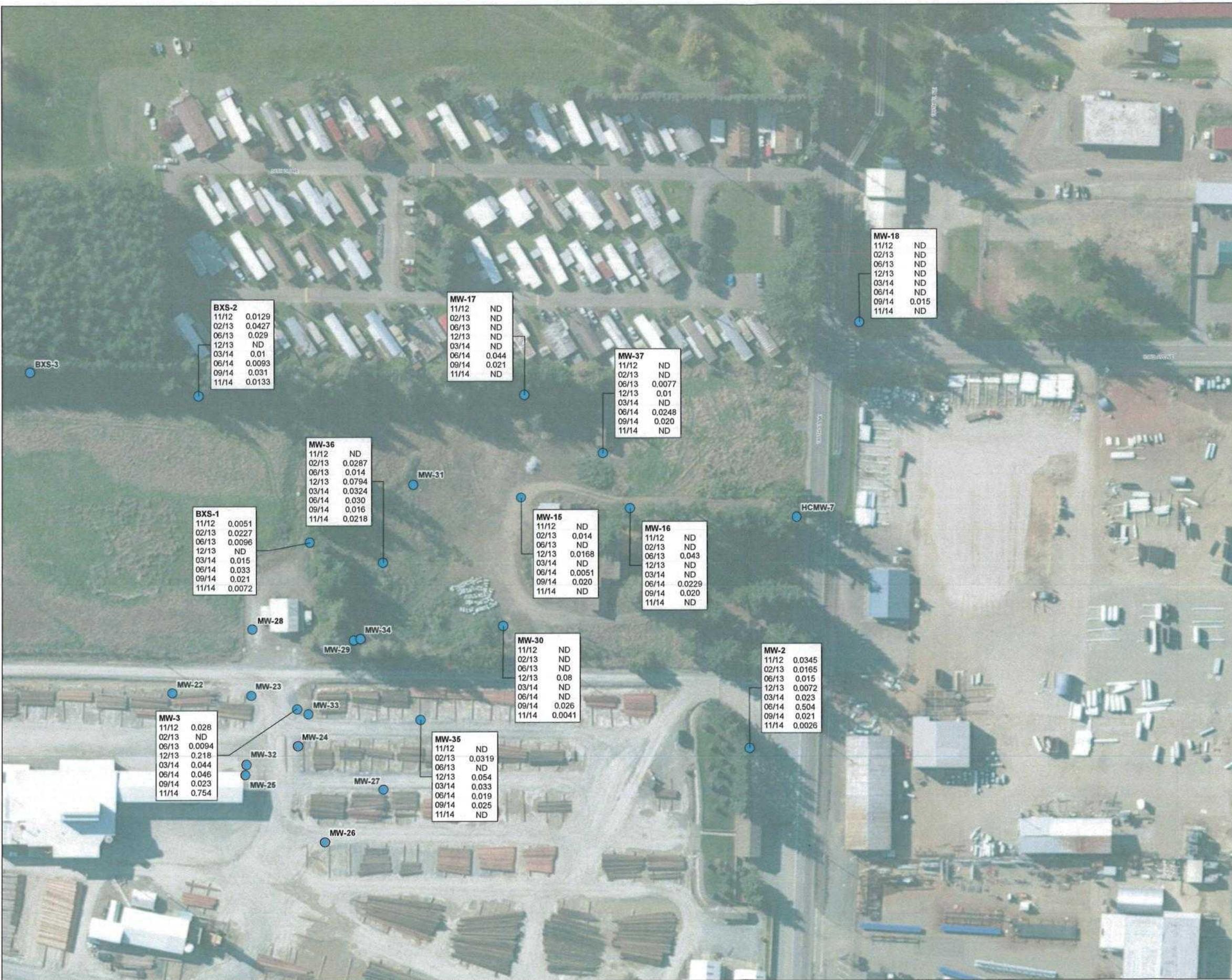


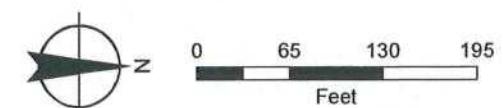
FIGURE 22

Total PAHs in Groundwater
Fourth Quarter 2012 - Fourth Quarter 2014

Former J.H. Baxter Wood Treating Facility
Arlington, Washington

NOTES:

1. Results in ug/L (microgram per liter)
2. Abbreviations:
ND Not-Detected



MAP NOTES:
Date: March 12, 2015
Data Sources: AMEC, ESRI, Air photo taken on July 9, 2010 by Microsoft



Appendix A



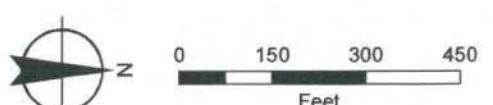
FIGURE A-1

Cross Section Location Map

Former J.H. Baxter Wood Treating Facility
Arlington, Washington

LEGEND

- Cross Section Lines
- Monitoring Well
- Recovery Well
- Extraction Well
- Infiltration Trench

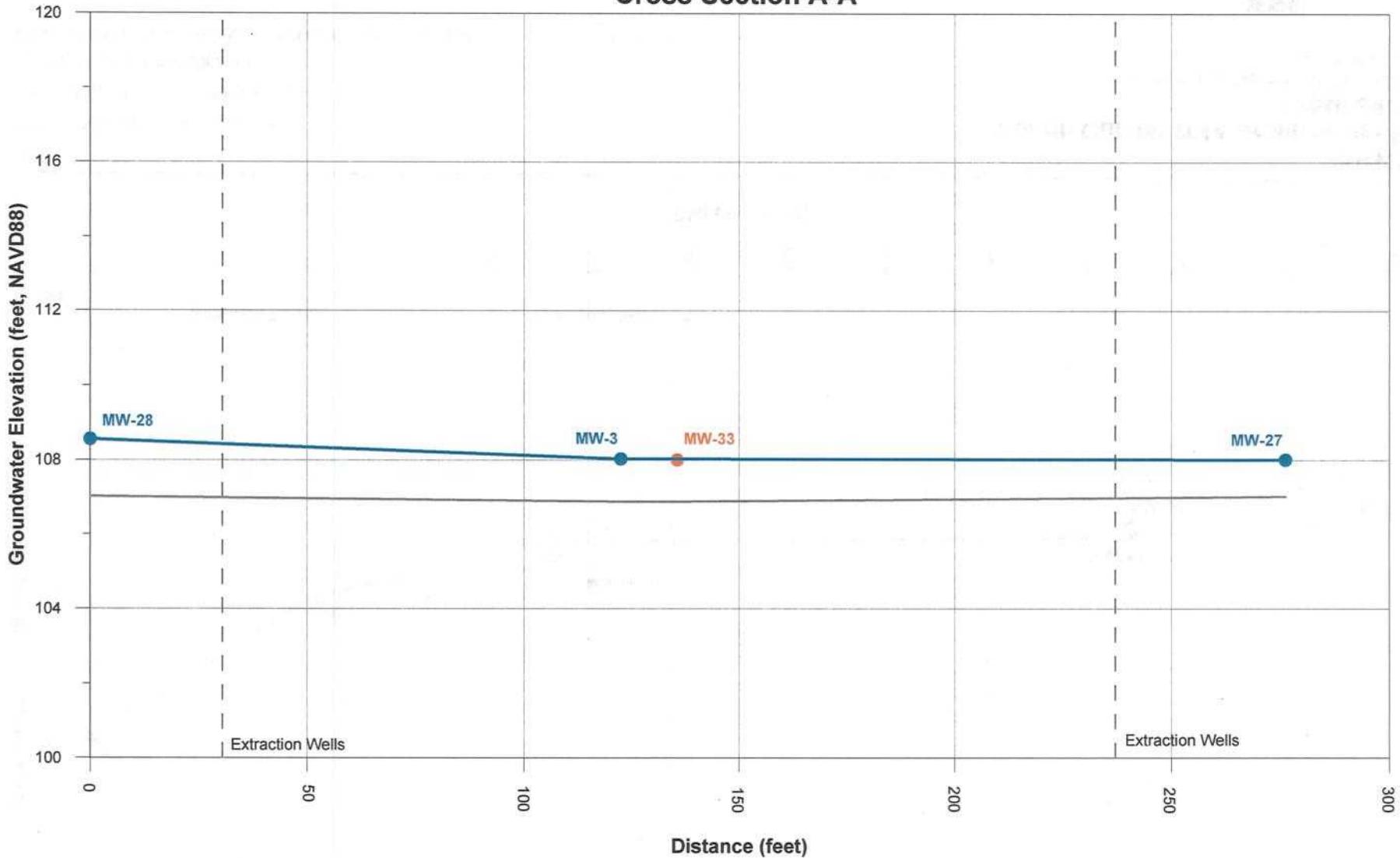


MAP NOTES:

Date: March 12, 2015
Data Sources: AMEC, ESRI, Air photo taken on July 9, 2010 by Microsoft



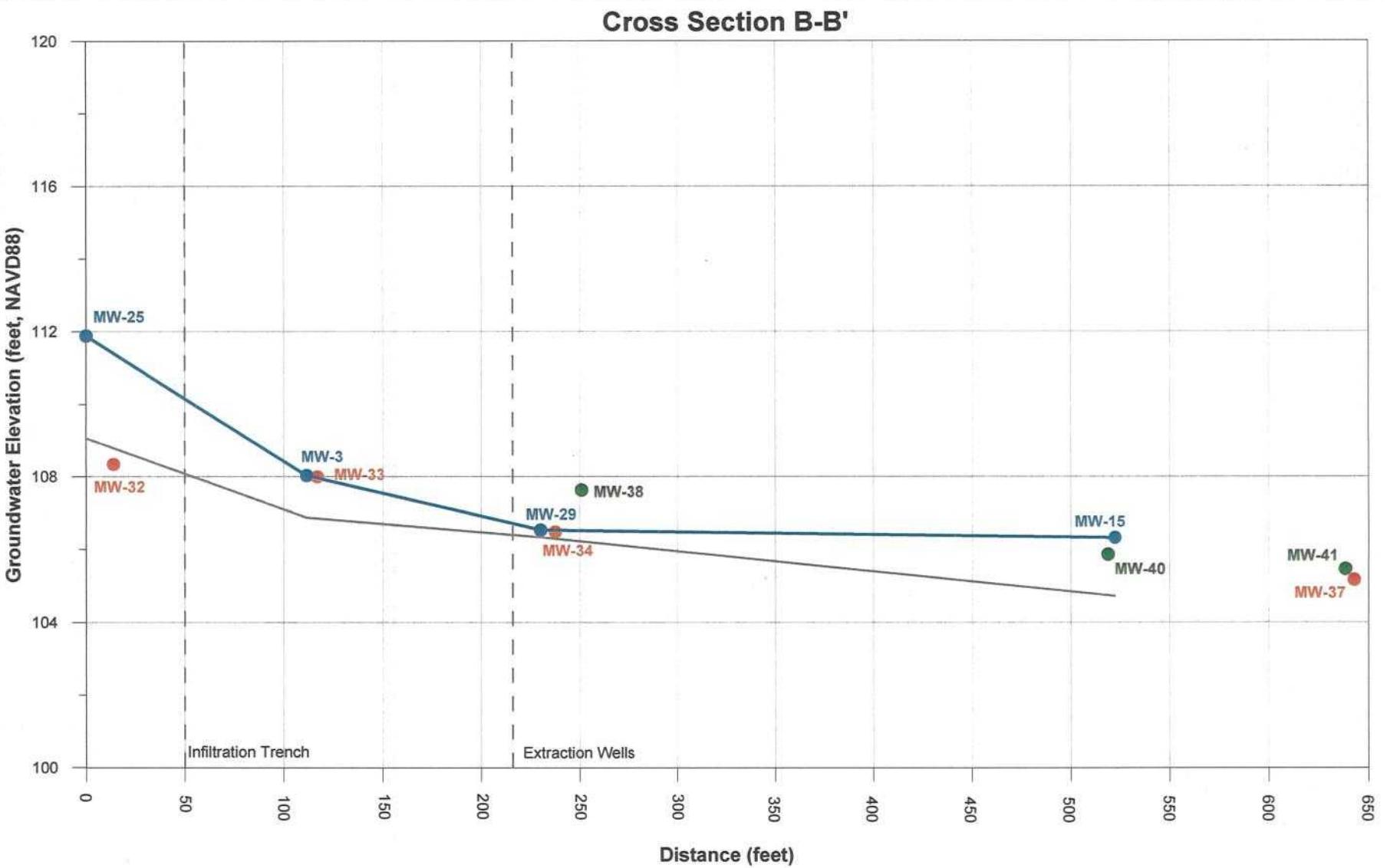
Cross Section A-A'



Legend:

- Shallow Well Groundwater Elevation
- Intermediate Well Groundwater Elevation
- Baseline Shallow Well Groundwater Elevation, January 28, 2008

FIGURE A-2
Fourth Quarter 2014 Groundwater Elevation
Cross Section A-A'
Former J.H. Baxter Wood Treating Facility
Arlington, Washington



Legend:

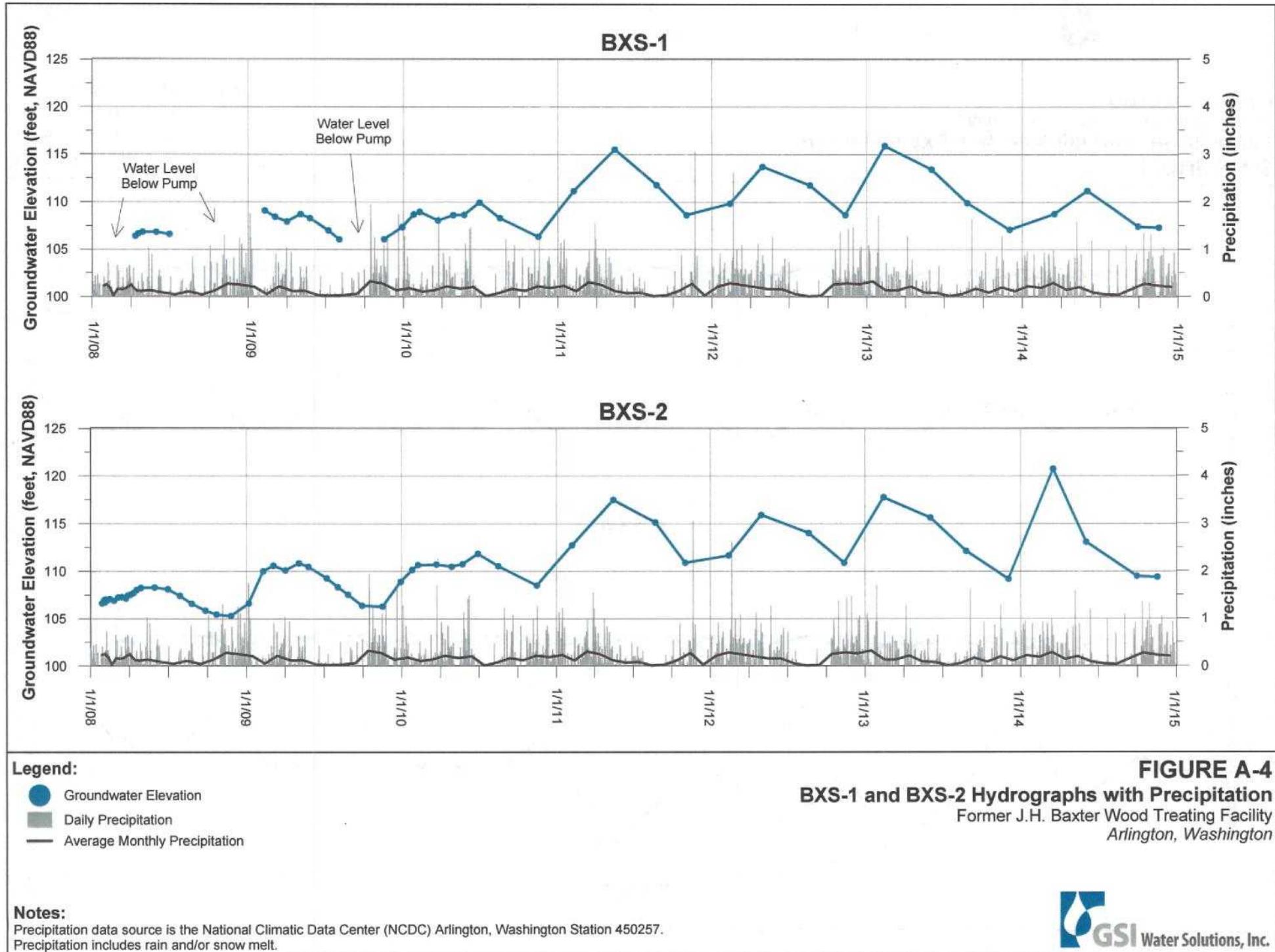
- Shallow Well Groundwater Elevation
- Intermediate Well Groundwater Elevation
- Deep Well Groundwater Elevation
- Baseline Shallow Well Groundwater Elevation, January 28, 2008

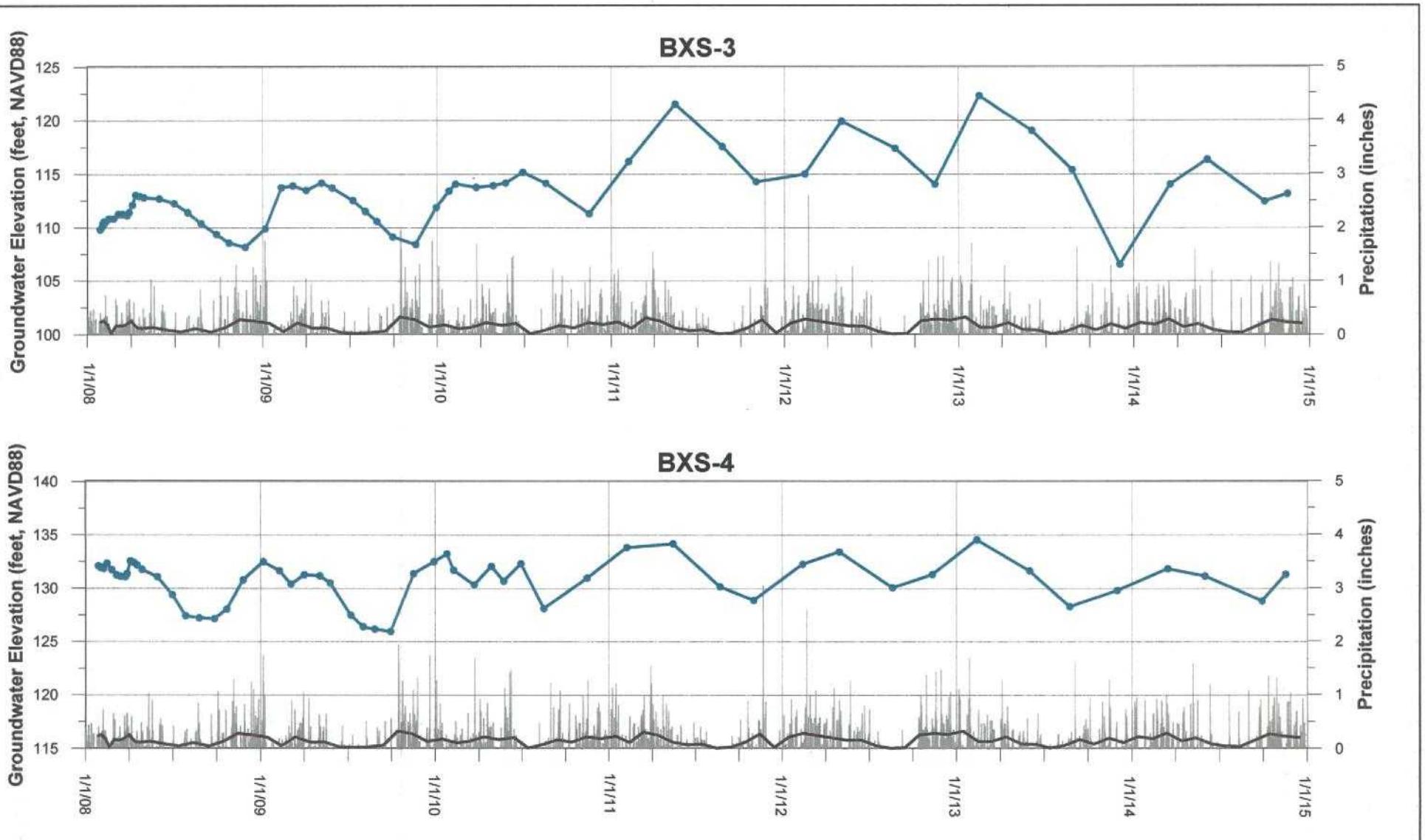
Notes:

In vicinity of MW-25 and MW-32, a silt layer is approximately 20' below ground surface; could account for larger differences in groundwater elevation in well pair.

FIGURE A-3
Fourth Quarter 2014 Groundwater Elevation
Cross Section B-B'

Former J.H. Baxter Wood Treating Facility
Arlington, Washington





Legend:

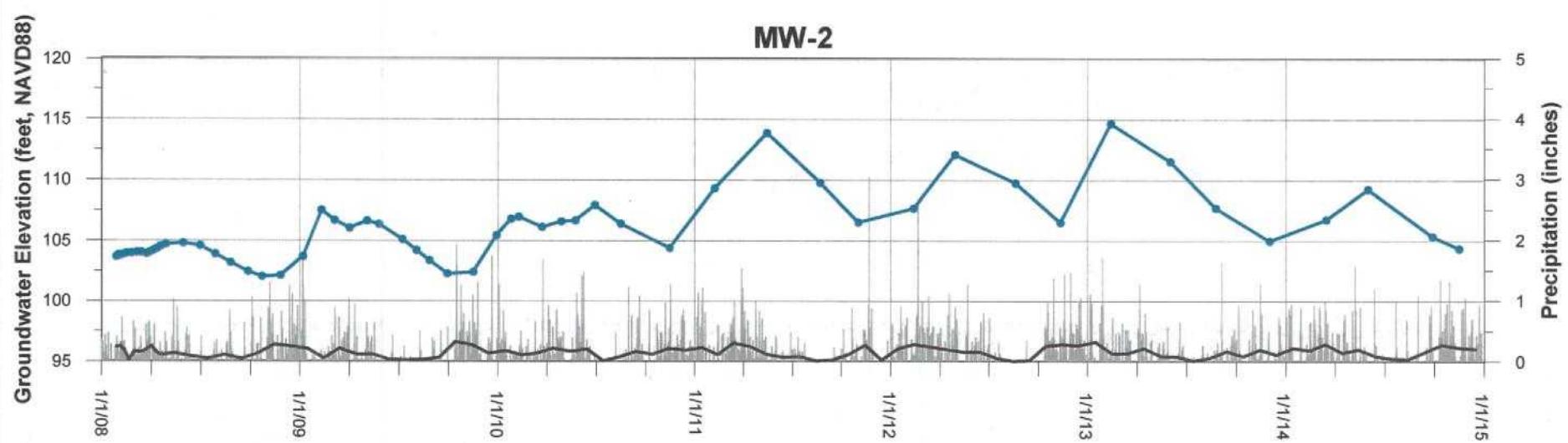
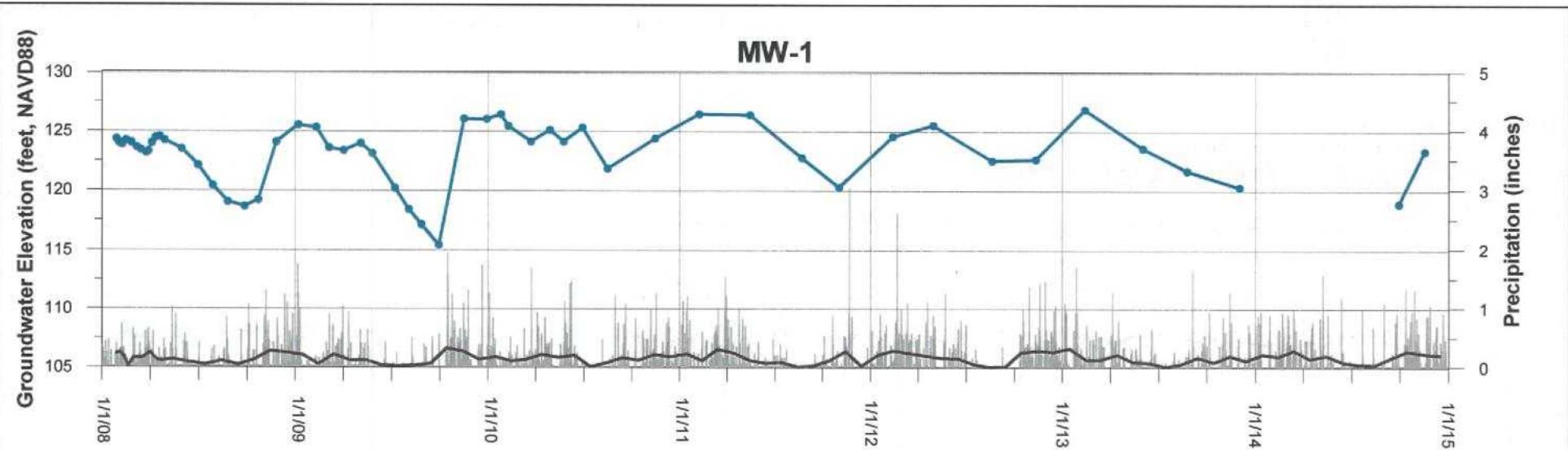
- Groundwater Elevation
- Daily Precipitation
- Average Monthly Precipitation

Notes:

Precipitation data source is the National Climatic Data Center (NCDC) Arlington, Washington Station 450257.
Precipitation includes rain and/or snow melt.

FIGURE A-5
BXS-3 and BXS-4 Hydrographs with Precipitation
Former J.H. Baxter Wood Treating Facility
Arlington, Washington





Legend:

- Groundwater Elevation
- Daily Precipitation
- Average Monthly Precipitation

Notes:

Precipitation data source is the National Climatic Data Center (NCDC) Arlington, Washington Station 450257.

Precipitation includes rain and/or snow melt.

MW-1 was not measured during the First and Second Quarters in 2014.

FIGURE A-6
MW-1 and MW-2 Hydrographs with Precipitation
Former J.H. Baxter Wood Treating Facility
Arlington, Washington

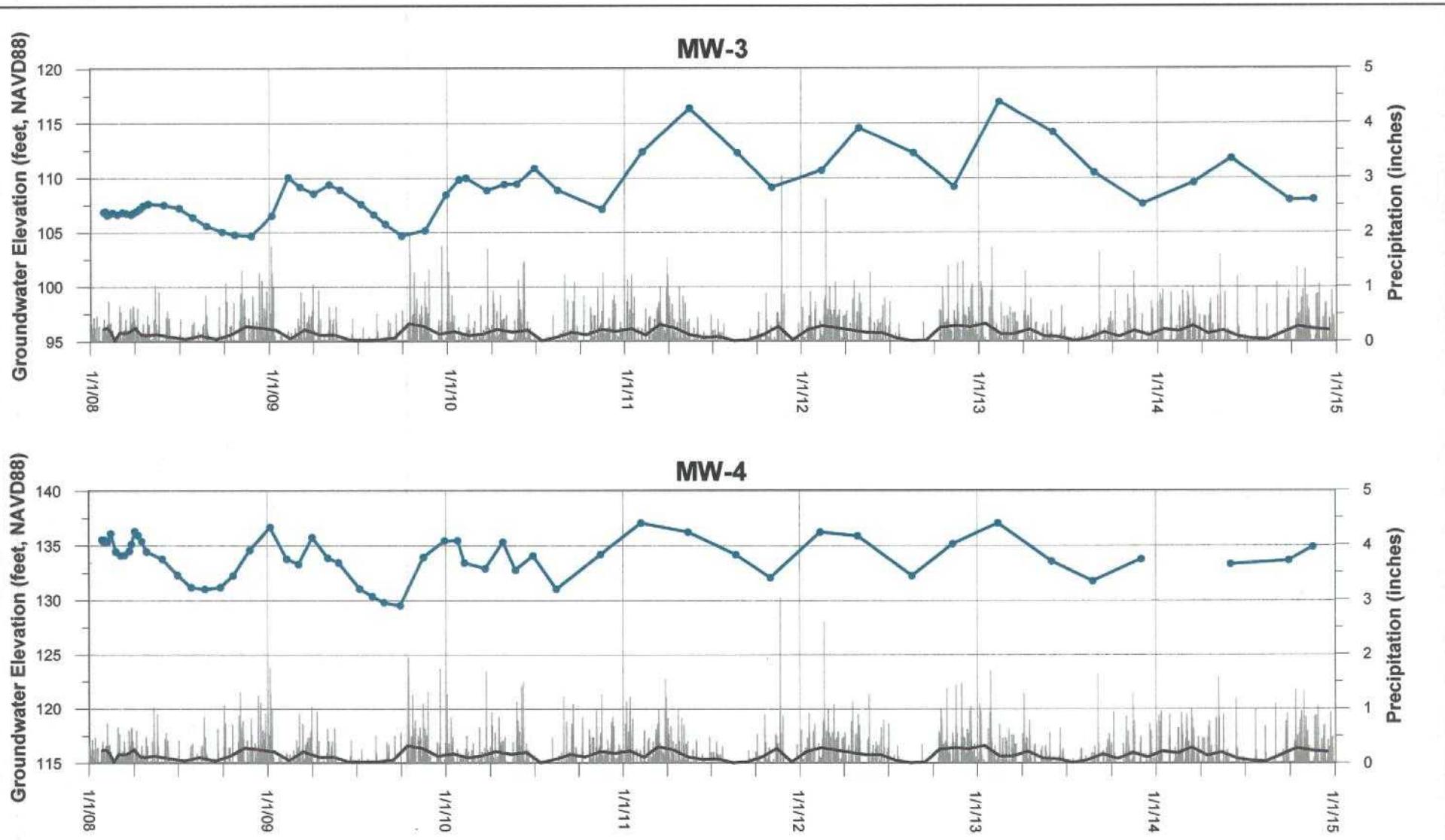


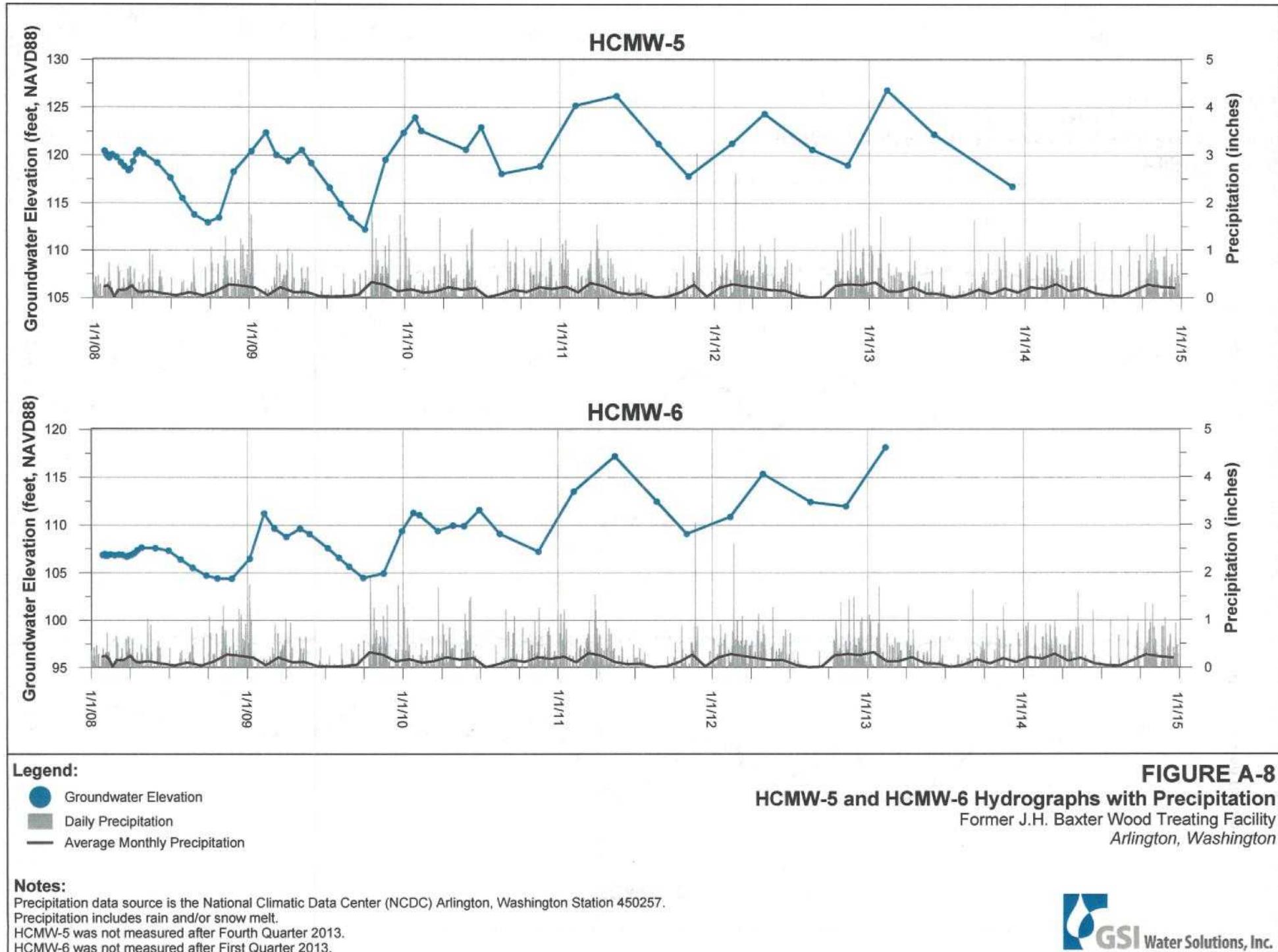
FIGURE A-7
MW-3 and MW-4 Hydrographs with Precipitation
Former J.H. Baxter Wood Treating Facility
Arlington, Washington

Notes:

Precipitation data source is the National Climatic Data Center (NCDC) Arlington, Washington Station 450257.

Precipitation includes rain and/or snow melt.

MW-4 was not measured during the First Quarter 2014.



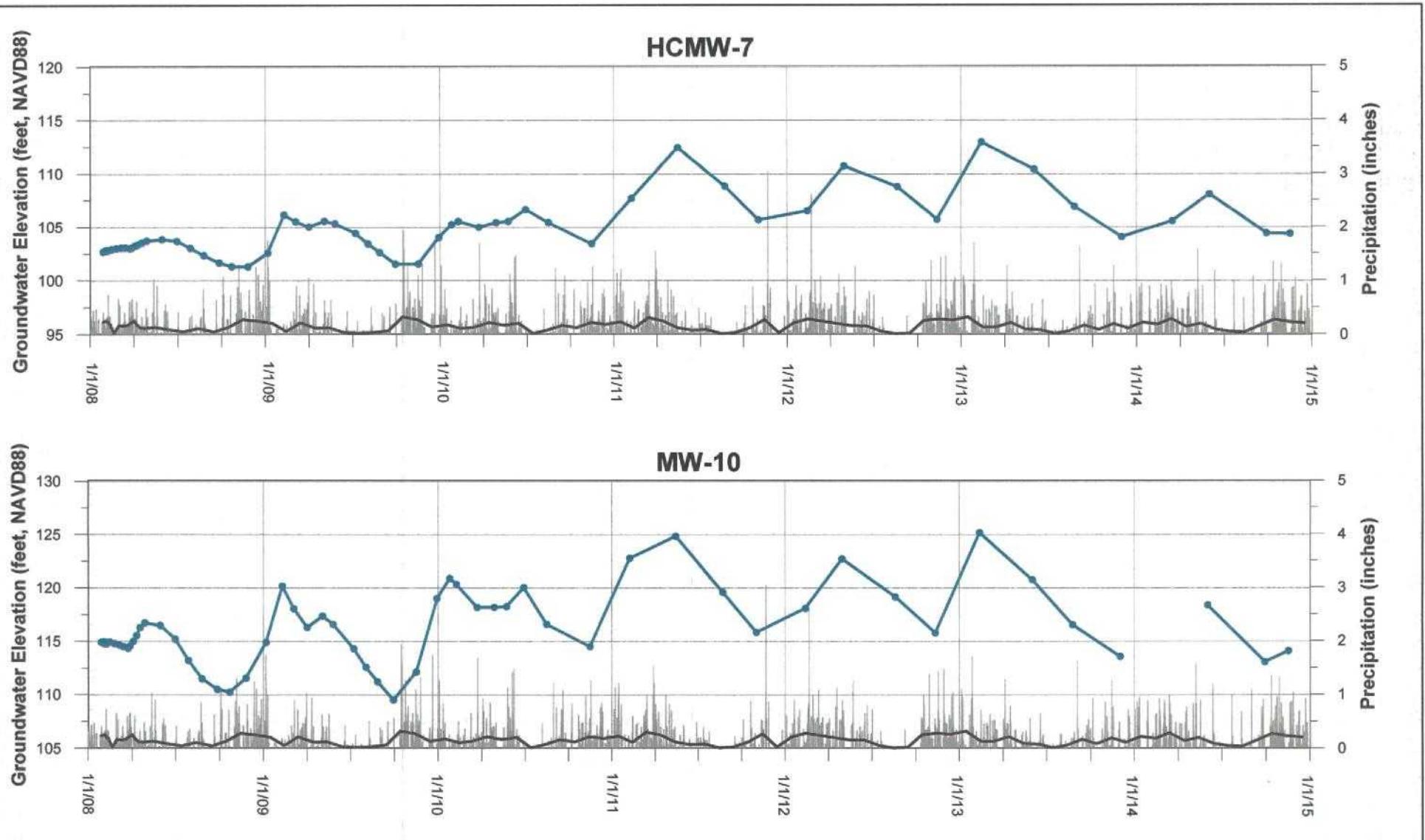


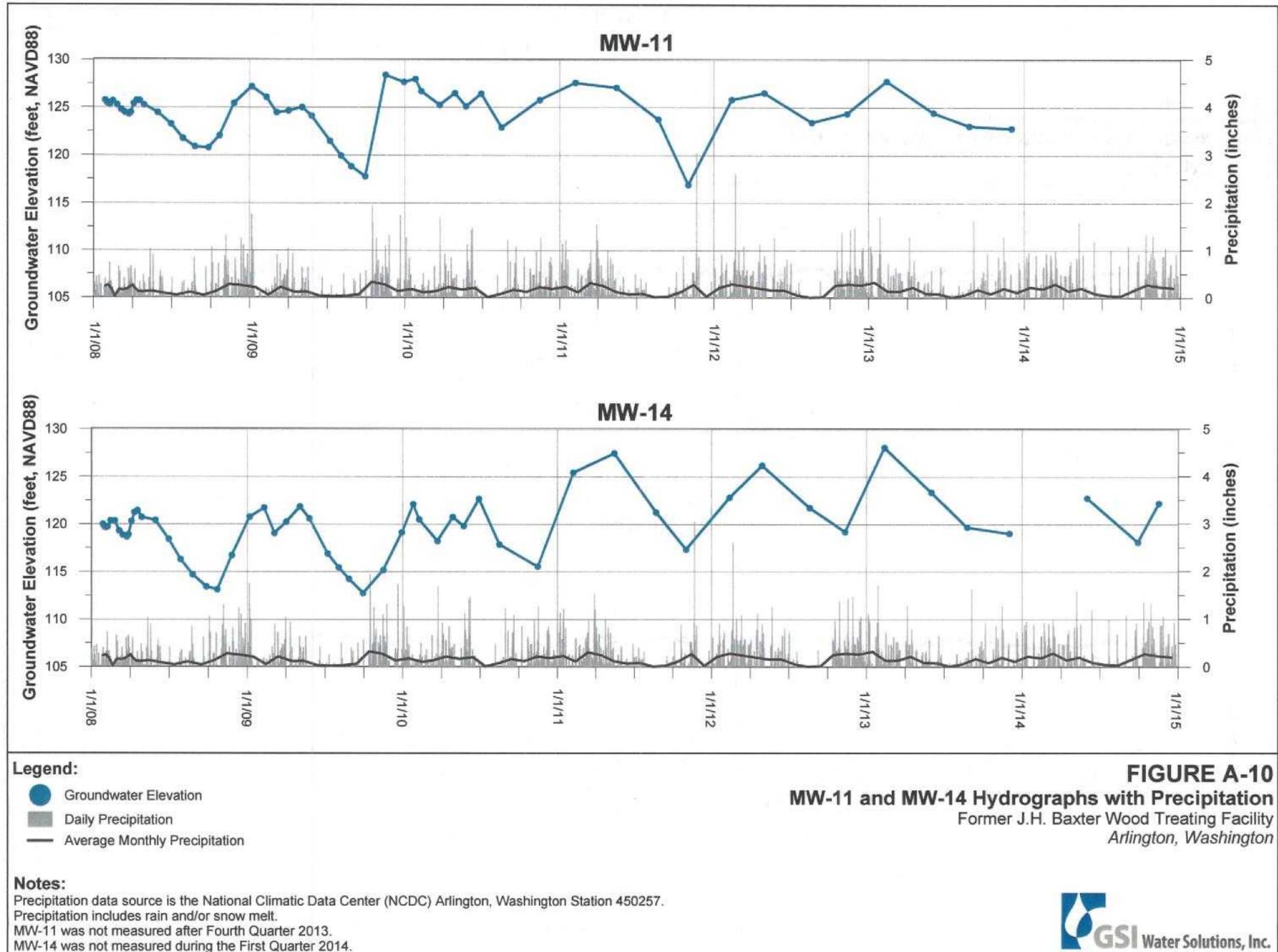
FIGURE A-9
HCMW-7 and MW-10 Hydrographs with Precipitation
Former J.H. Baxter Wood Treating Facility
Arlington, Washington

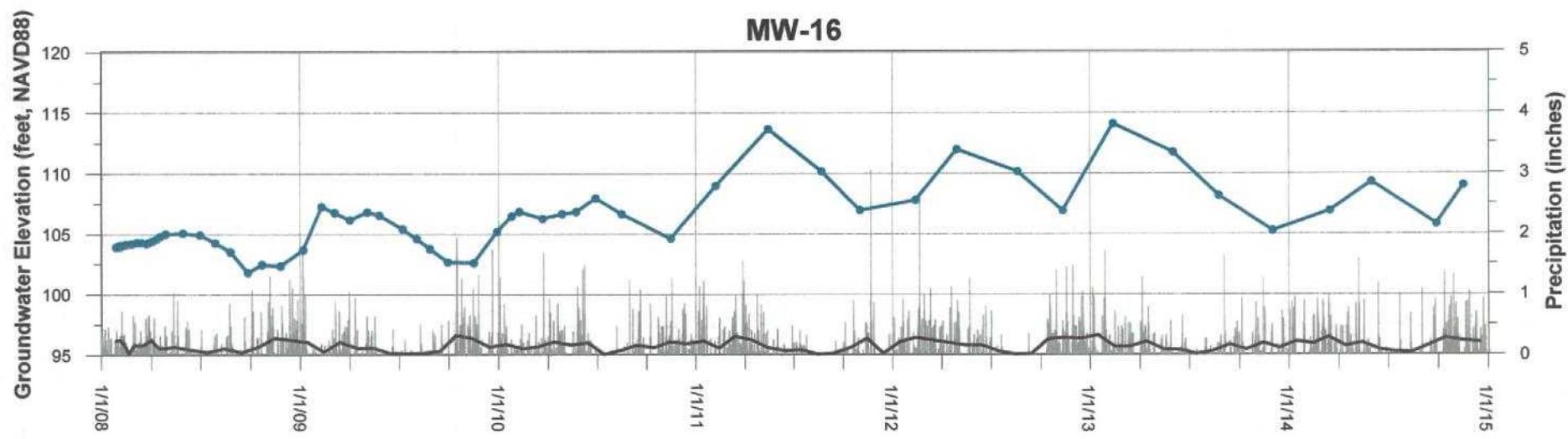
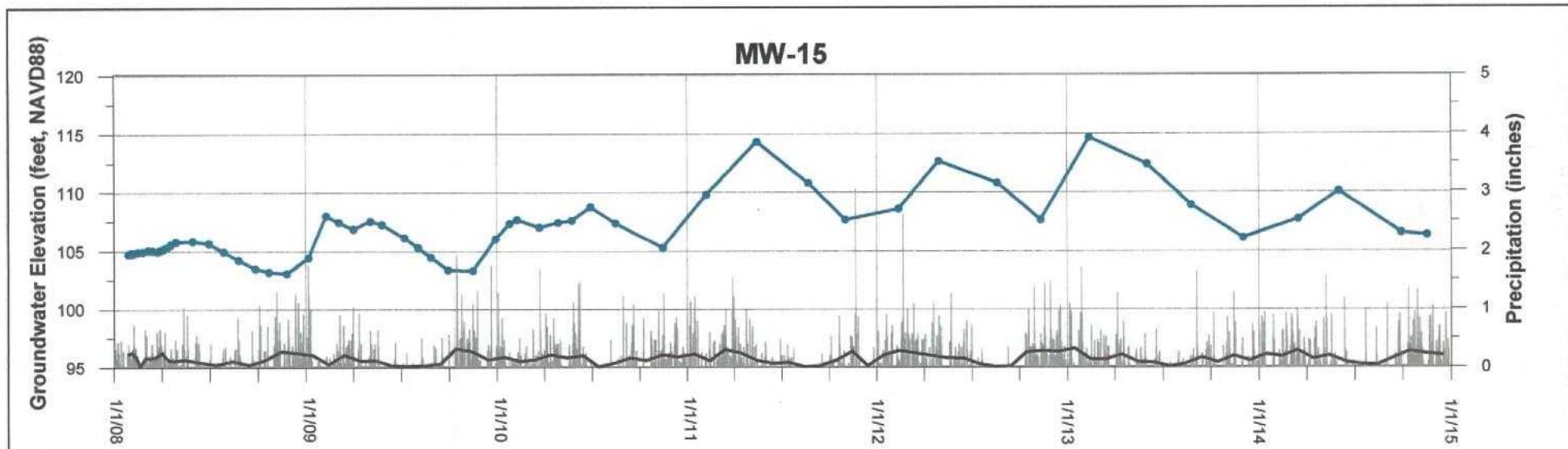
Notes:

Precipitation data source is the National Climatic Data Center (NCDC) Arlington, Washington Station 450257.

Precipitation includes rain and/or snow melt.

MW-10 was not measured during the First Quarter 2014.





Legend:

- Groundwater Elevation
- Daily Precipitation
- Average Monthly Precipitation

Notes:

Precipitation data source is the National Climatic Data Center (NCDC) Arlington, Washington Station 450257.

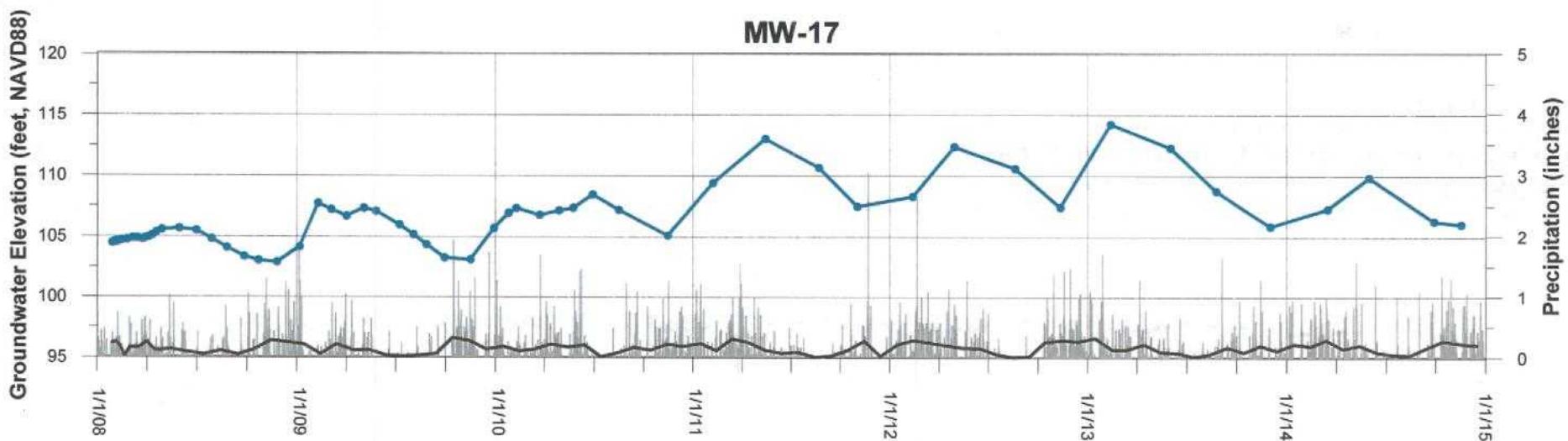
Precipitation includes rain and/or snow melt.

MW-15 measurement from the Second Quarter 2011 was suspected as incorrect and estimated by calculating the average elevation difference between MW-15 and MW-40 from the Third Quarter 2010 through the First Quarter 2011, and adding this difference to the Second Quarter 2011 groundwater elevation measured at MW-40.

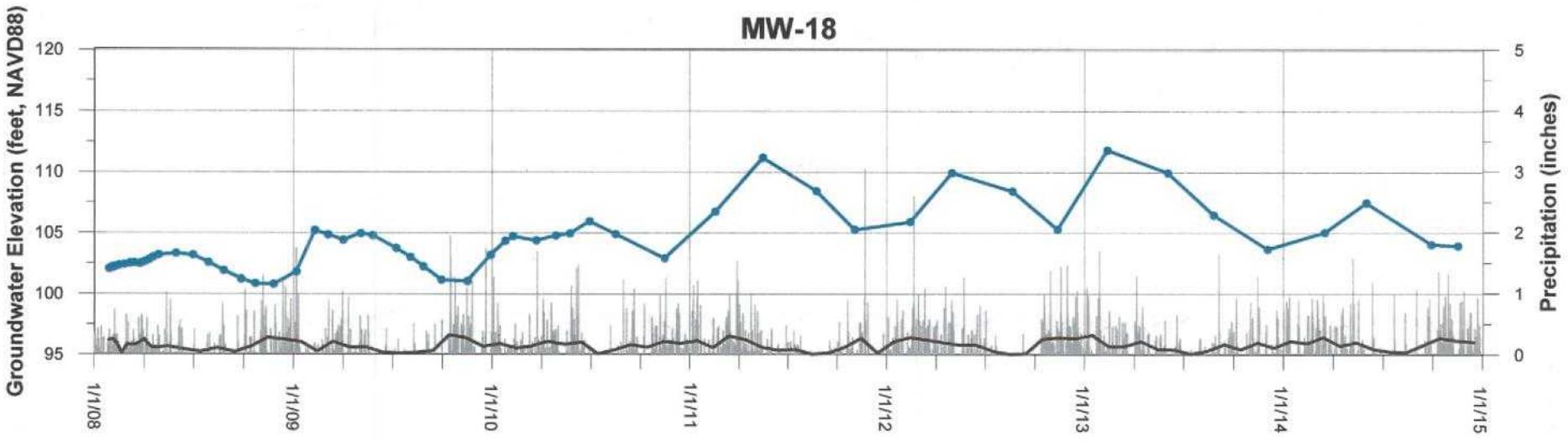
FIGURE A-11
MW-15 and MW-16 Hydrographs with Precipitation
Former J.H. Baxter Wood Treating Facility
Arlington, Washington



MW-17



MW-18



Legend:

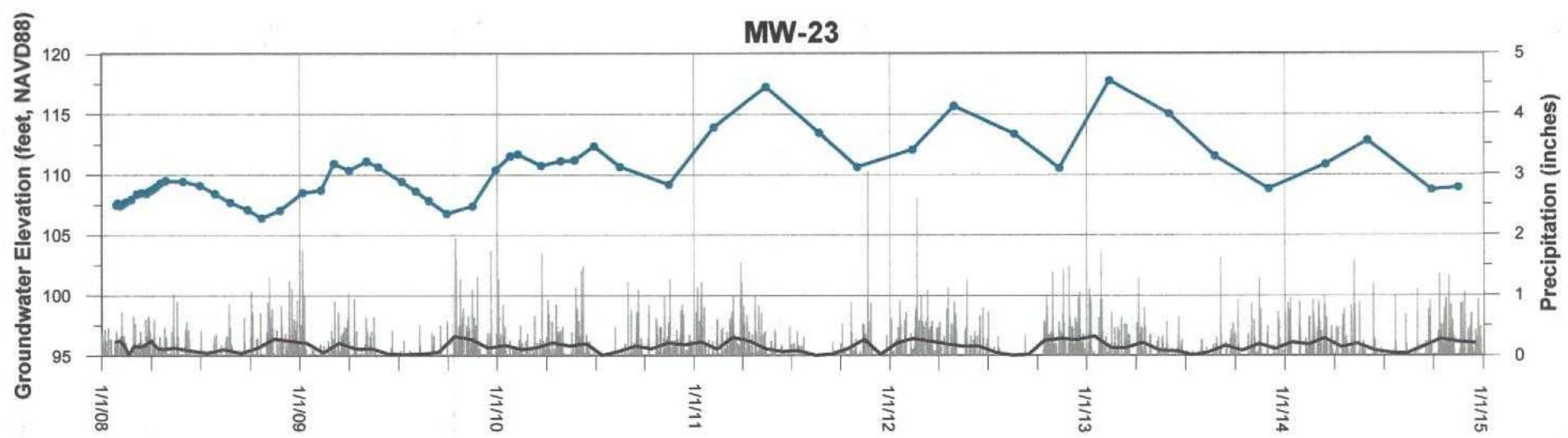
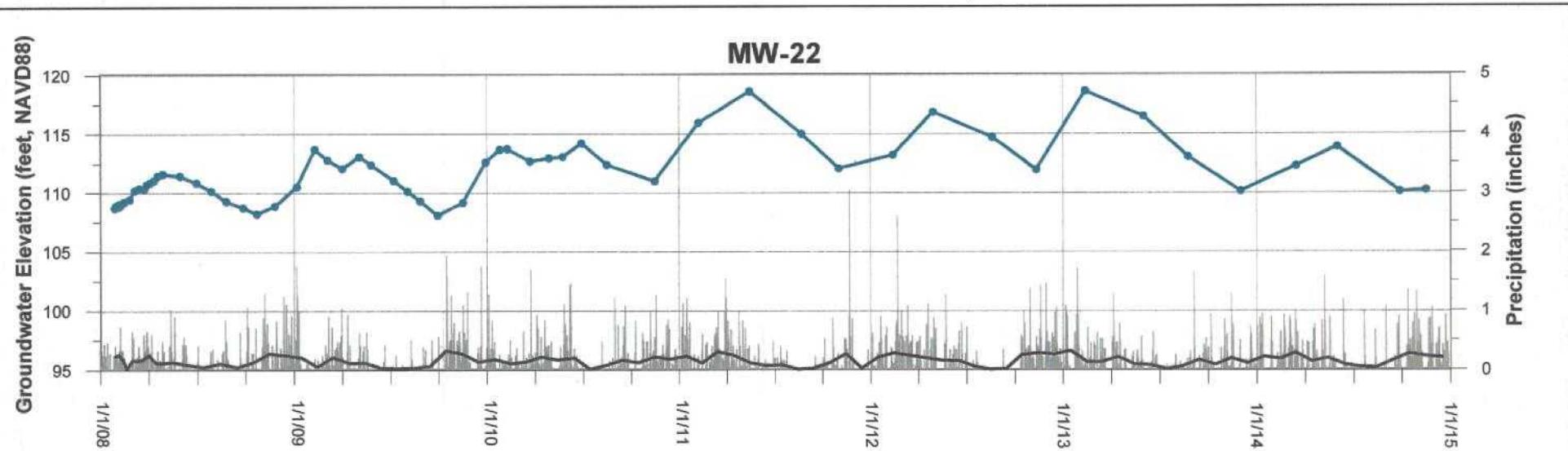
- Groundwater Elevation
- Daily Precipitation
- Average Monthly Precipitation

FIGURE A-12

MW-17 and MW-18 Hydrographs with Precipitation
Former J.H. Baxter Wood Treating Facility
Arlington, Washington

Notes:

Precipitation data source is the National Climatic Data Center (NCDC) Arlington, Washington Station 450257.
Precipitation includes rain and/or snow melt.



Legend:

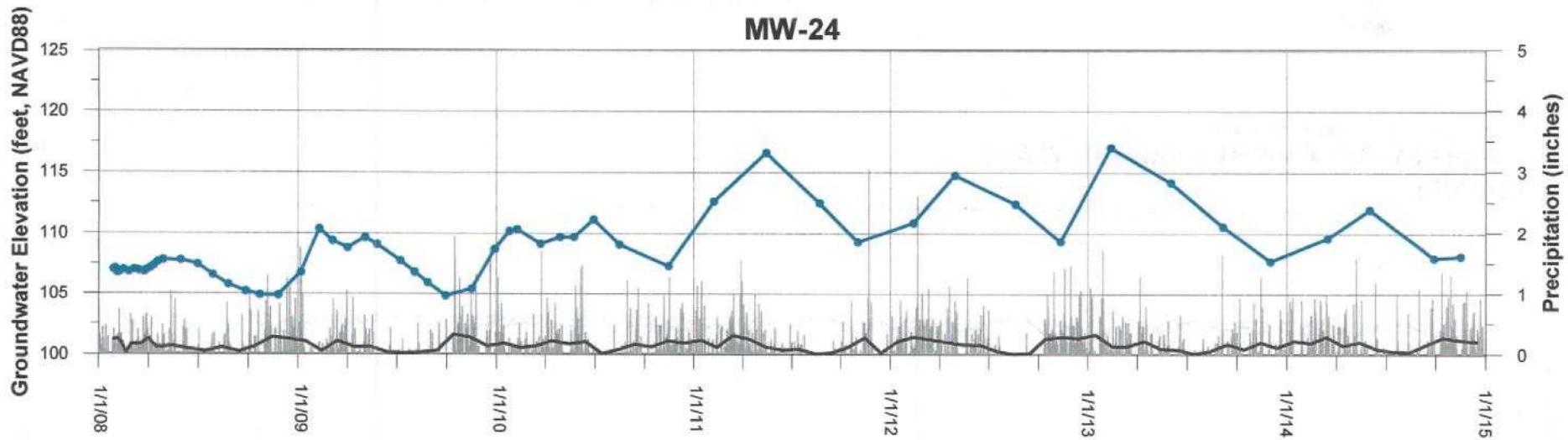
- Groundwater Elevation
- Daily Precipitation
- Average Monthly Precipitation

Notes:

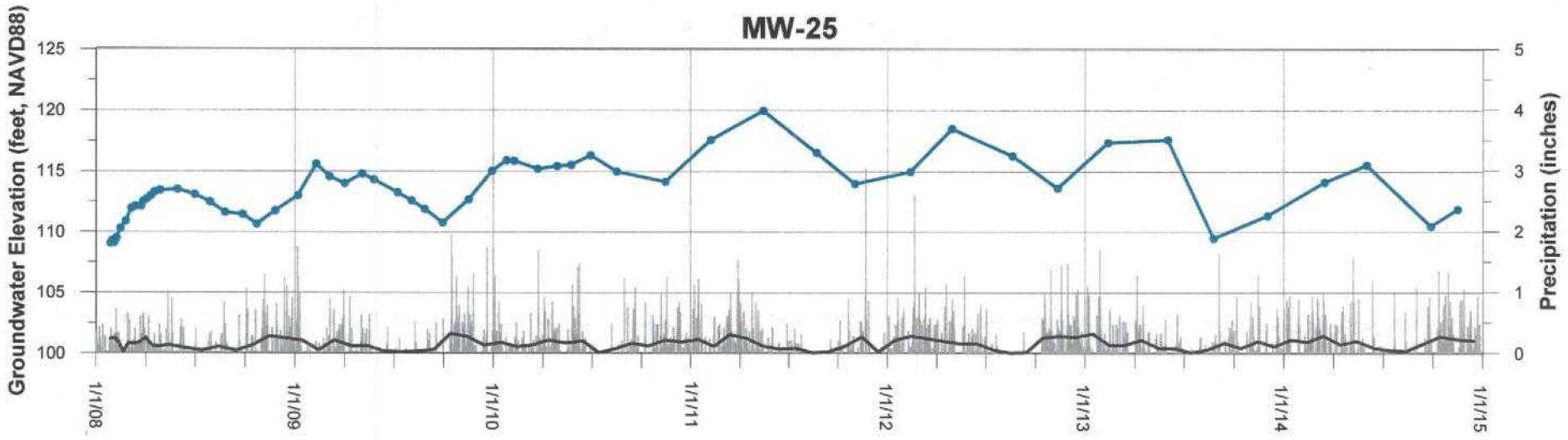
Precipitation data source is the National Climatic Data Center (NCDC) Arlington, Washington Station 450257.
Precipitation includes rain and/or snow melt.

FIGURE A-13
MW-22 and MW-23 Hydrographs with Precipitation
Former J.H. Baxter Wood Treating Facility
Arlington, Washington

MW-24



MW-25



Legend:

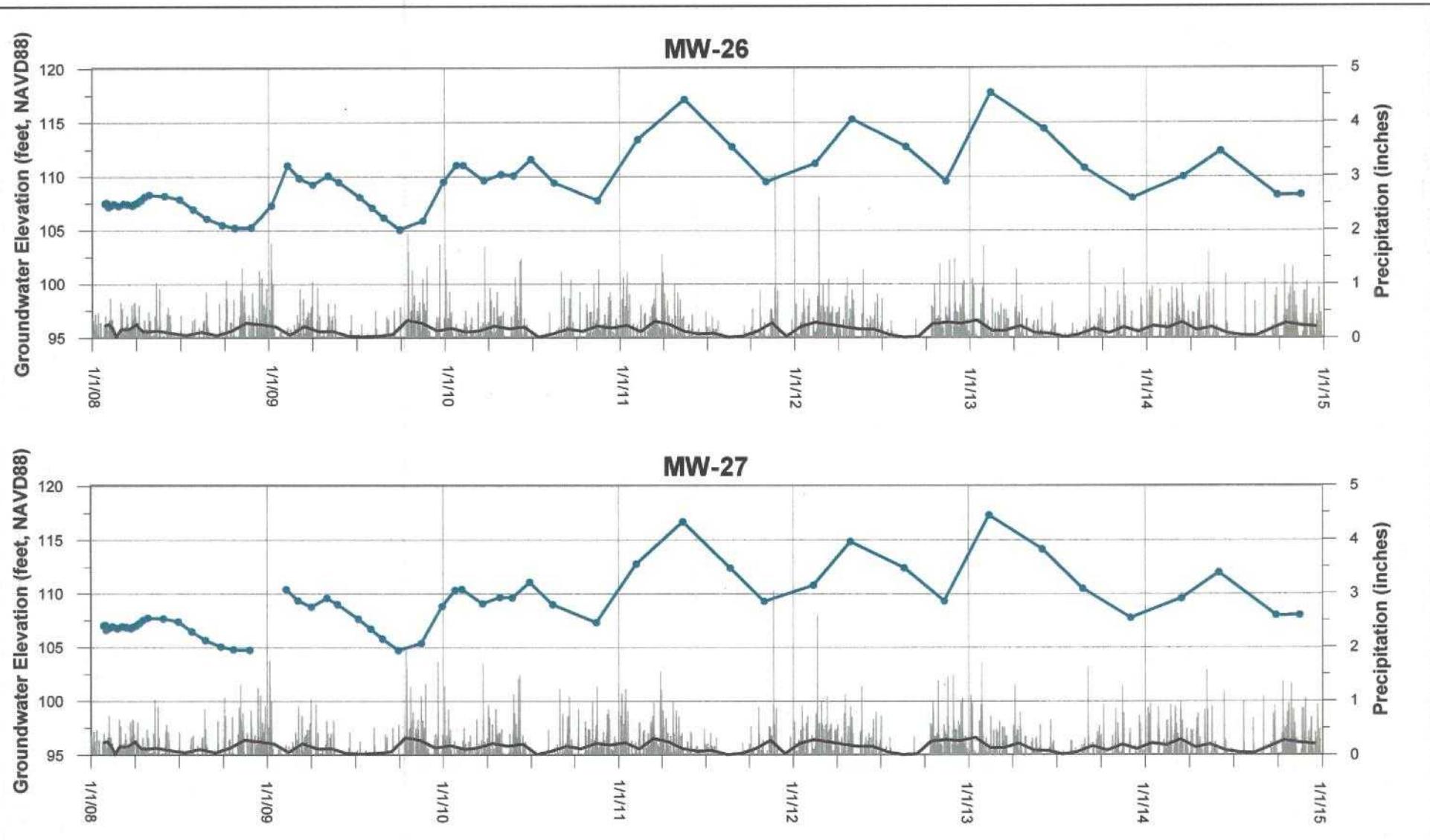
- Groundwater Elevation
- Daily Precipitation
- Average Monthly Precipitation

Notes:

Precipitation data source is the National Climatic Data Center (NCDC) Arlington, Washington Station 450257.
Precipitation includes rain and/or snow melt.

FIGURE A-14
MW-24 and MW-25 Hydrographs with Precipitation
Former J.H. Baxter Wood Treating Facility
Arlington, Washington





Legend:

- Groundwater Elevation
- Daily Precipitation
- Average Monthly Precipitation

Notes:

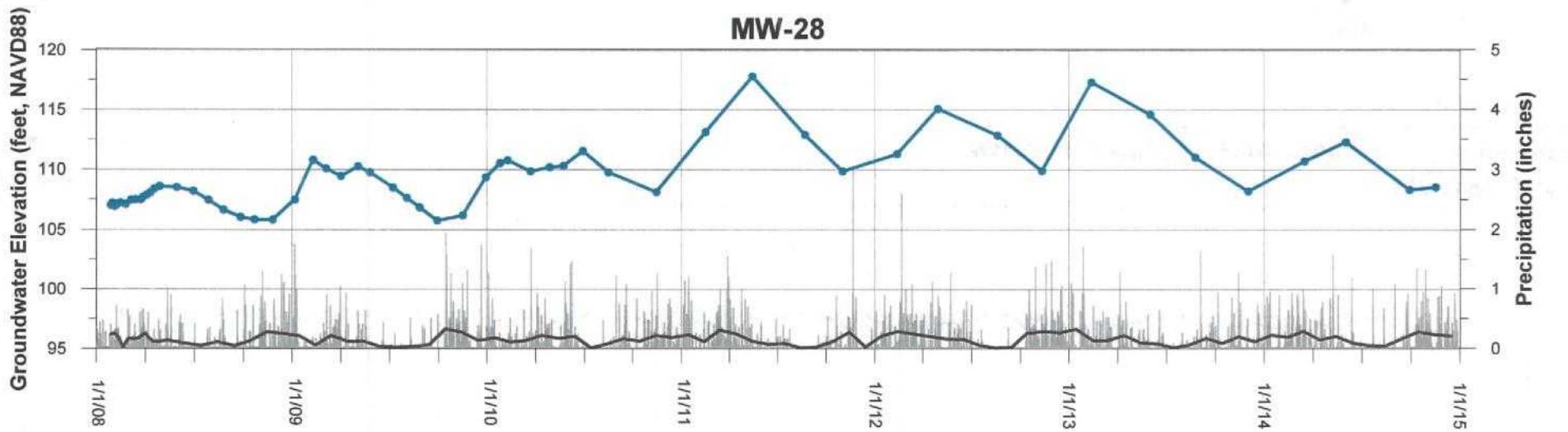
Precipitation data source is the National Climatic Data Center (NCDC) Arlington, Washington Station 450257.

Precipitation includes rain and/or snow melt.

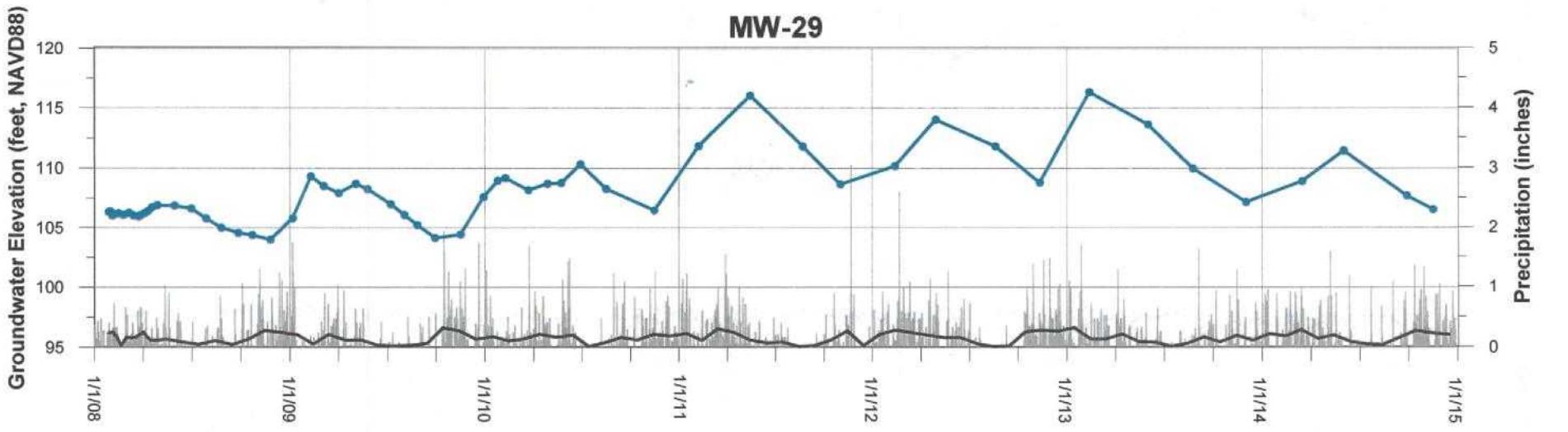
MW-27 was not measured in December 2008 due to high surface water conditions surrounding the well.

FIGURE A-15
MW-26 and MW-27 Hydrographs with Precipitation
 Former J.H. Baxter Wood Treating Facility
 Arlington, Washington

MW-28



MW-29



Legend:

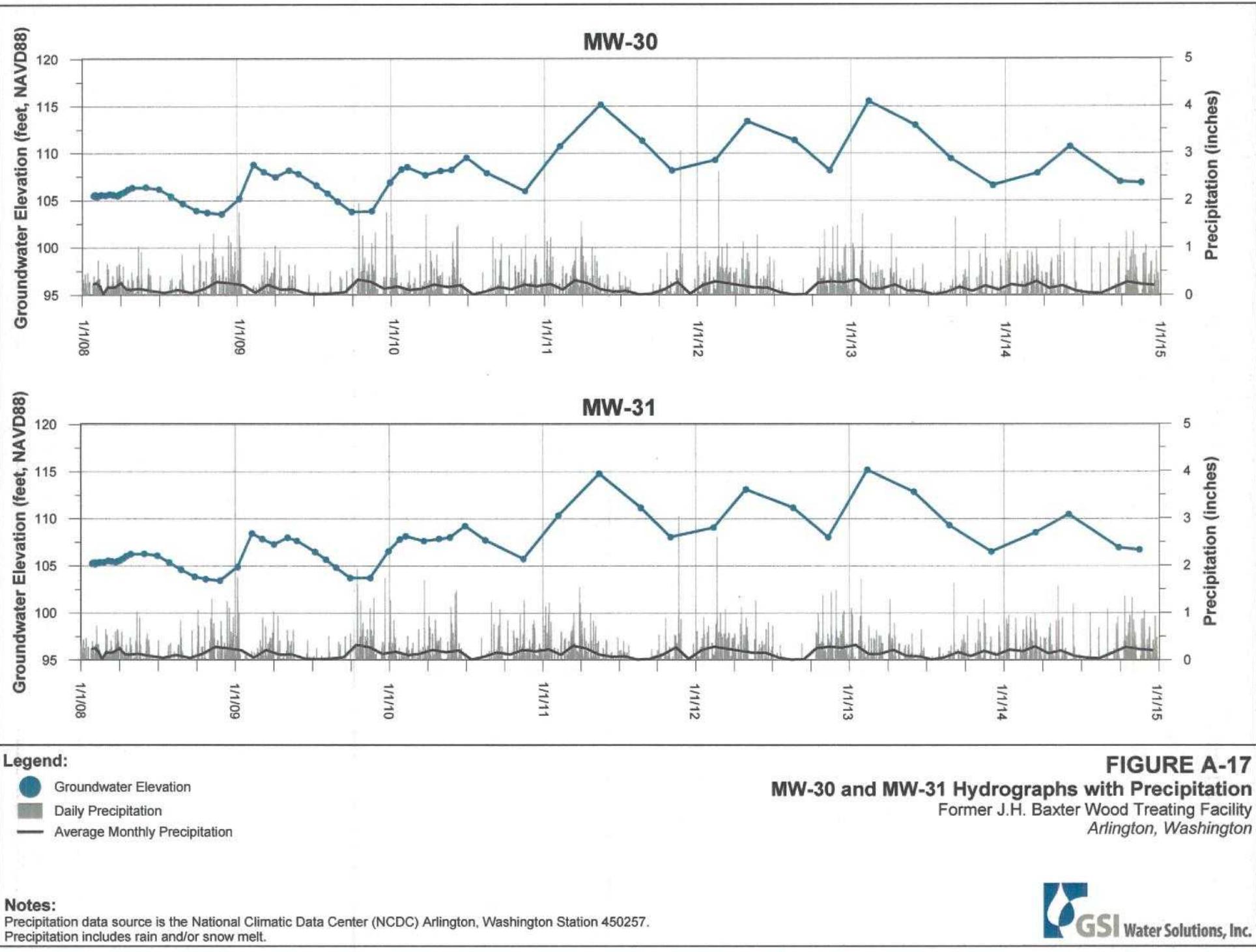
- Groundwater Elevation
- Daily Precipitation
- Average Monthly Precipitation

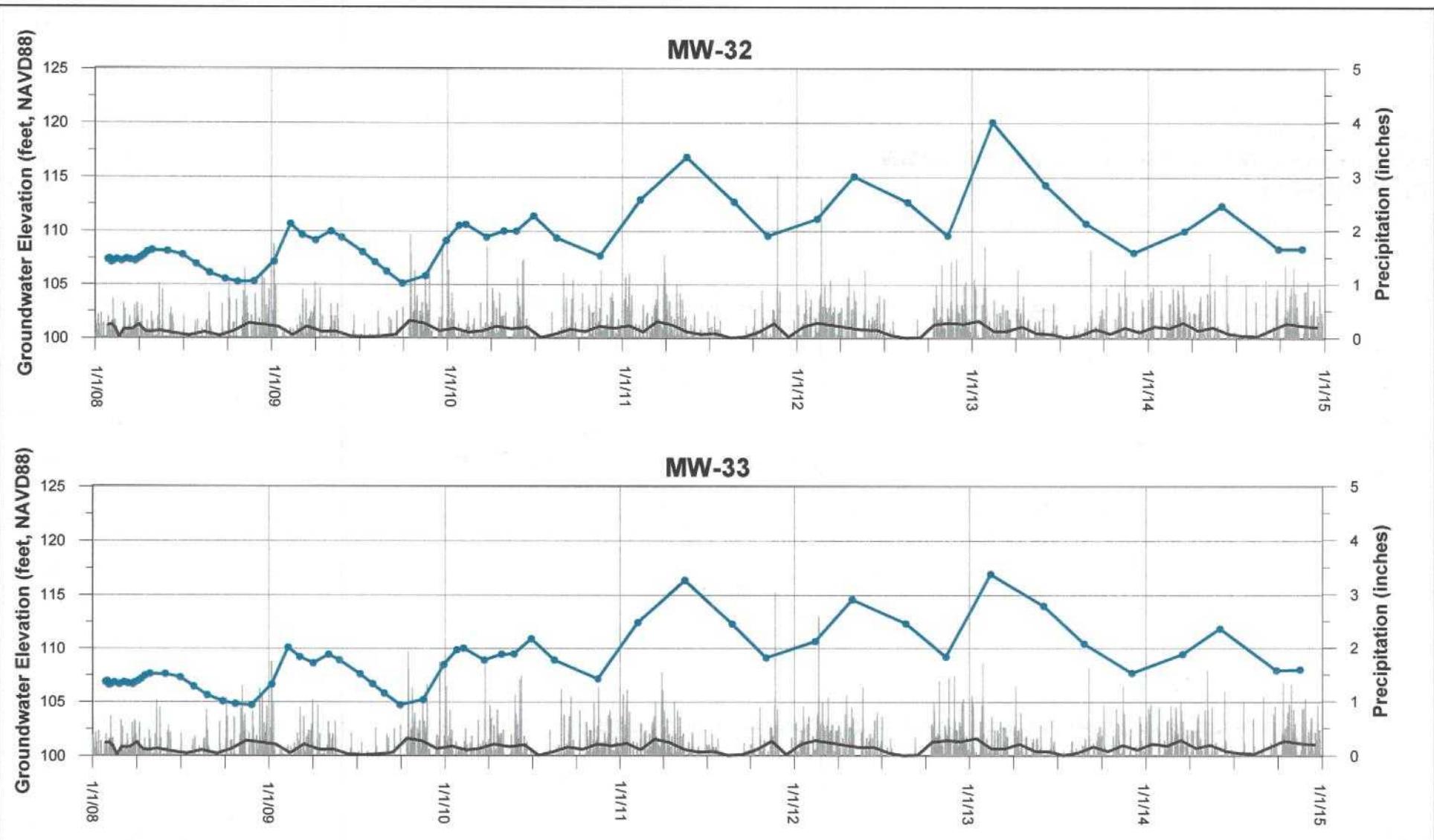
Notes:

Precipitation data source is the National Climatic Data Center (NCDC) Arlington, Washington Station 450257.
Precipitation includes rain and/or snow melt.

FIGURE A-16
MW-28 and MW-29 Hydrographs with Precipitation
Former J.H. Baxter Wood Treating Facility
Arlington, Washington







Legend:

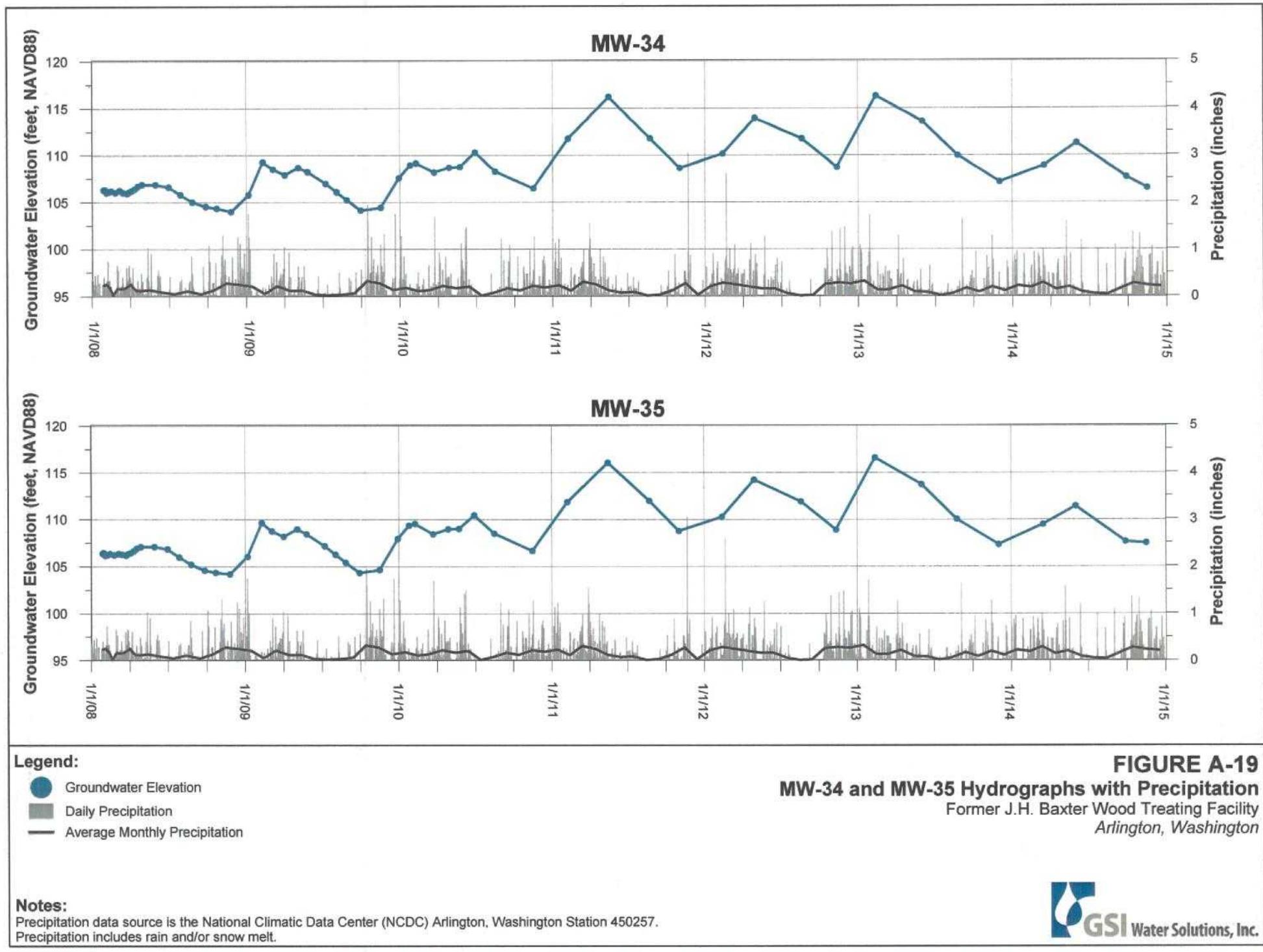
- Groundwater Elevation
- Daily Precipitation
- Average Monthly Precipitation

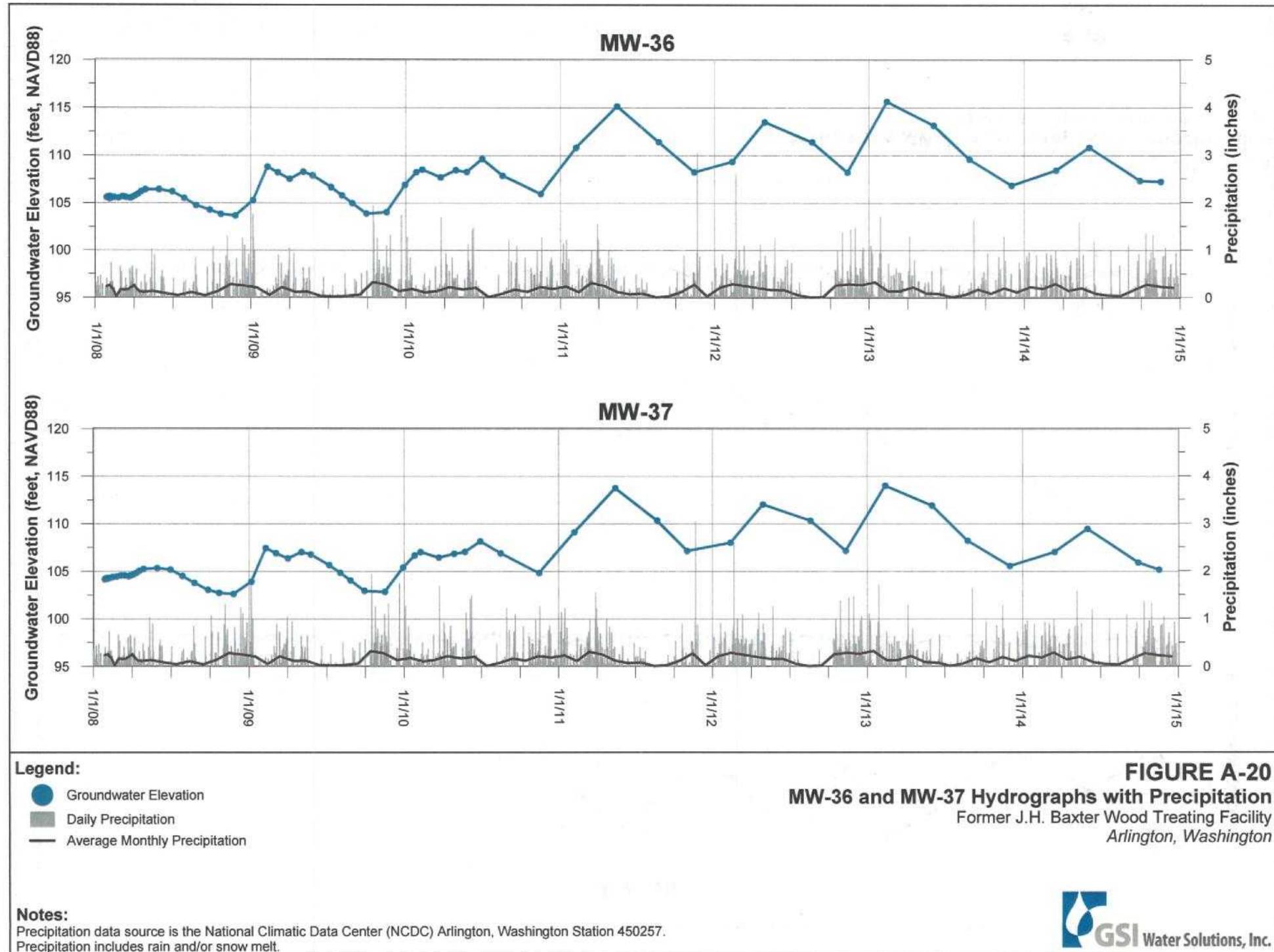
Notes:

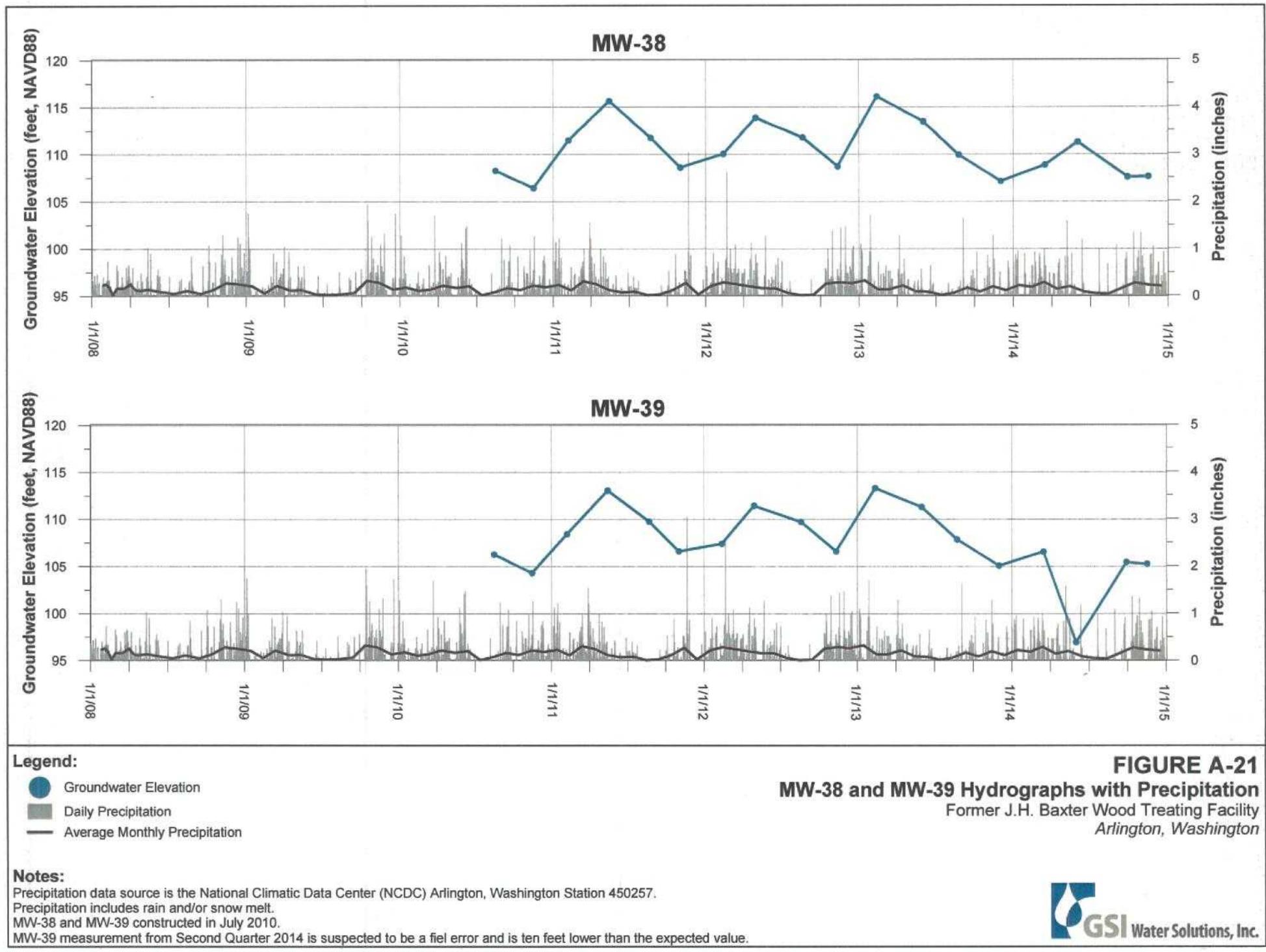
Precipitation data source is the National Climatic Data Center (NCDC) Arlington, Washington Station 450257.
Precipitation includes rain and/or snow melt.

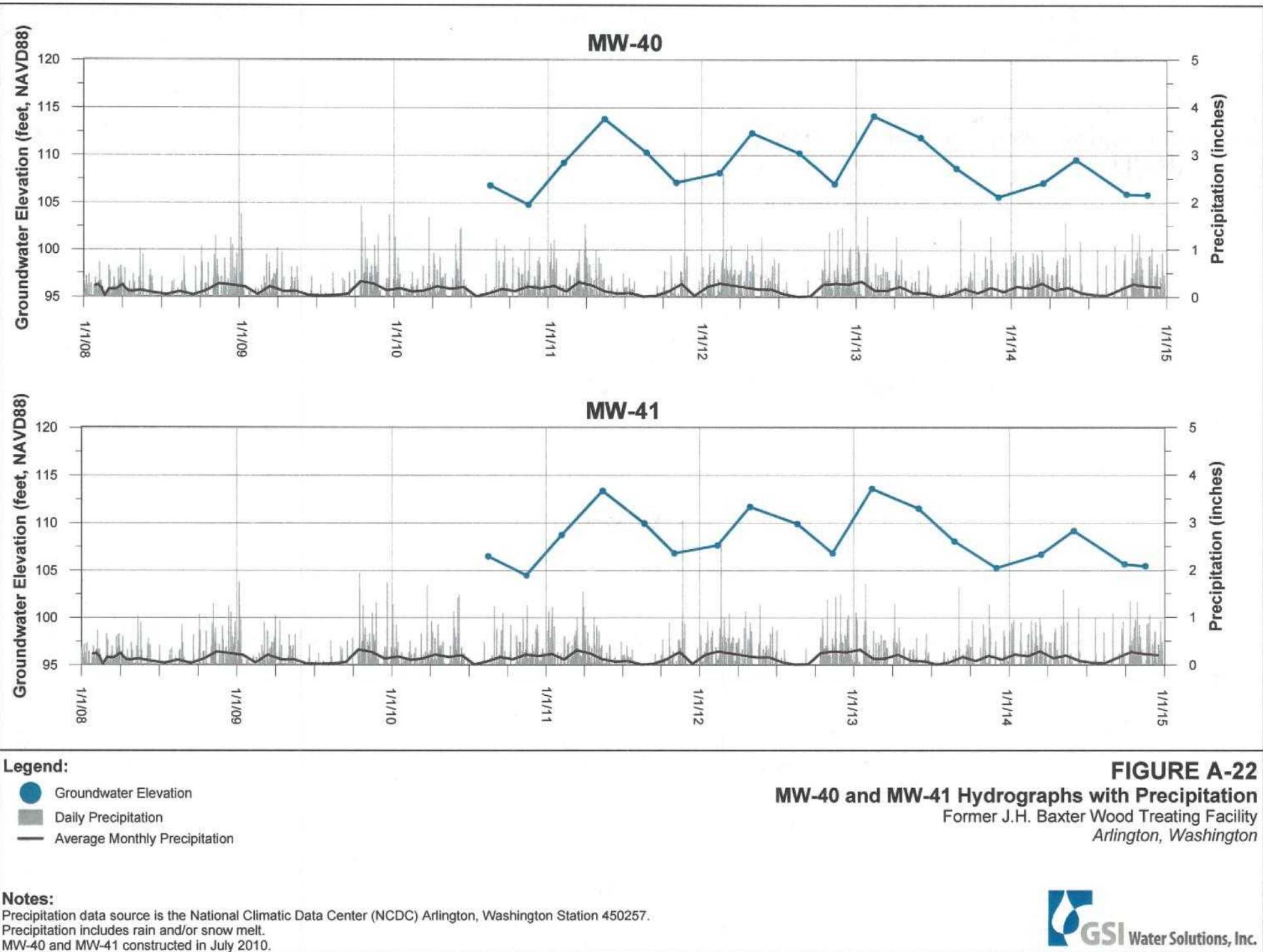
FIGURE A-18
MW-32 and MW-33 Hydrographs with Precipitation
Former J.H. Baxter Wood Treating Facility
Arlington, Washington











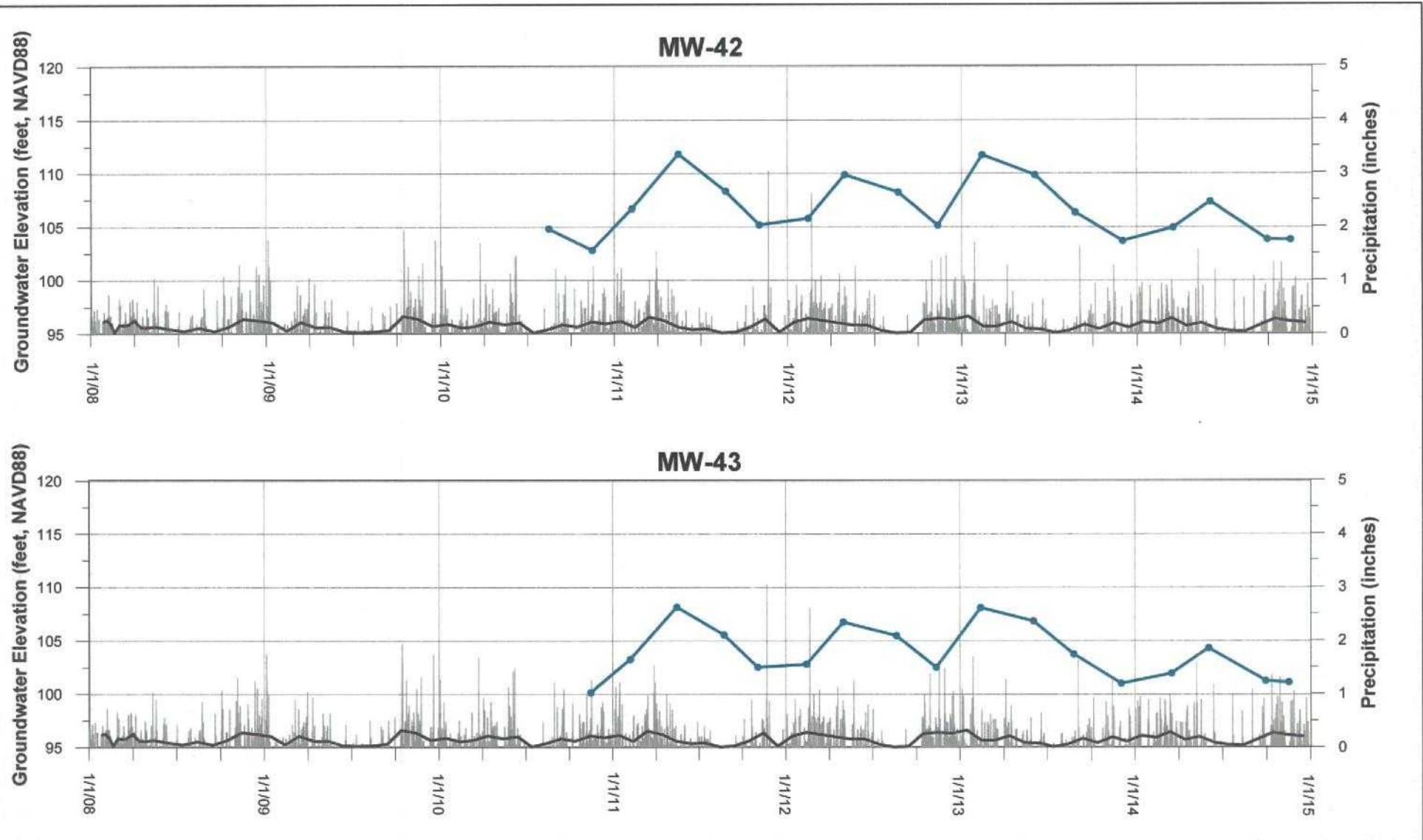


FIGURE A-23
MW-42 and MW-43 Hydrographs with Precipitation
Former J.H. Baxter Wood Treating Facility
Arlington, Washington

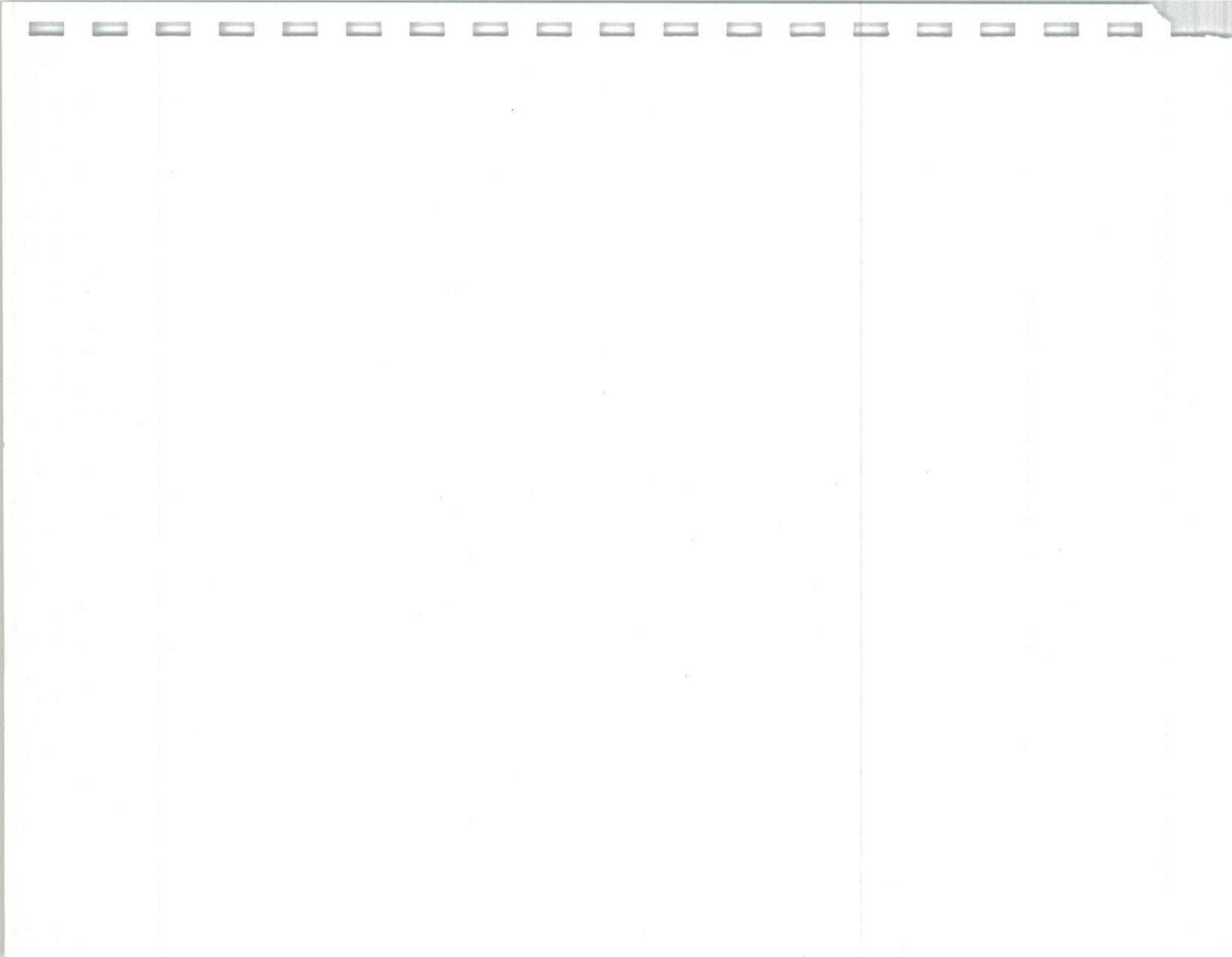
Notes:

Precipitation data source is the National Climatic Data Center (NCDC) Arlington, Washington Station 450257.

Precipitation includes rain and/or snow melt.

MW-42 constructed in July 2010 and MW-43 constructed in October 2010.

Appendix B





ALS Environmental
ALS Group USA, Corp
1317 South 13th Avenue
Kelso, WA 98626
T: 1-360-577-7222
F: 1-360-636-1068
www.alsglobal.com

January 07, 2015

Analytical Report for Service Request No: K1413045

Scott Thielke
JH Baxter & Company
85 N. Baxter Road
P.O. Box 10797
Eugene, OR 97440

RE: JH Baxter - Arlington

Dear Scott:

Enclosed are the results of the sample(s) submitted to our laboratory on November 19, 2014. For your reference, these analyses have been assigned our service request number **K1413045**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3363. You may also contact me via email at Lisa.Domenighini@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

A handwritten signature in black ink, appearing to read "Lisa Domenighini".

Lisa Domenighini
Project Manager

Page 1 of 519

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEC UST	http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdpb.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L14-51
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	Not available	-
Idaho DHW	http://www.healthandwelfare.idaho.gov/Health/Labs/CertificationDrinkingWaterLabs/tabid/1833/Default.aspx	-
ISO 17025	http://www.pjlabs.com/	L14-50
Louisiana DEQ	http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx	03016
Maine DHS	Not available	WA01276
Michigan DEQ	http://www.michigan.gov/deq/0,1607,7-135-3307_4131_4156---,00.html	9949
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Montana DPHHS	http://www.dphhs.mt.gov/publichealth/	CERT0047
Nevada DEP	http://ndep.nv.gov/bsdw/lbservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/oqa/	WA005
North Carolina DWQ	http://www.dwqlab.org/	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/envserv/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wisconsin DNR	http://dnr.wi.gov/	998386840
Wyoming (EPA Region 8)	http://www.epa.gov/region8/water/dwhome/wyomingdi.html	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.



Case Narrative

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577- 7222 Fax (360)636- 1068
www.alsglobal.com

ALS ENVIRONMENTAL

Client:	JH Baxter & Company	Service Request No.:	K1413045
Project:	J.H. Baxter - Arlington	Date Received:	11/19/14
Sample Matrix:	Water		

Case Narrative

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV validation deliverables including summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Three samples were received for analysis at ALS Environmental on 11/19/14. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Pentachlorophenol by EPA Method 8151

Matrix Spike Recovery Exceptions:

The control criteria for matrix spike recovery of Pentachlorophenol for sample Batch QC were not applicable. The analyte concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

No other anomalies associated with the analysis of these samples were observed.

Polynuclear Aromatic Hydrocarbons by EPA Method 8270

Calibration Verification Exceptions:

The following analytes were flagged as outside the control criterion for Continuing Calibration Verification (CCV) MS14\1202F027.D: Indeno(1,2,3-cd)pyrene. In accordance with the EPA Method, 80% or more of the CCV analytes must have passed within 20% of the true value. The remaining analytes are allowed a 40% difference as per the ALS SOP. The CCV met these criteria. No further corrective action was required.

Elevated Detection Limits:

The detection limit was elevated for Acenaphthene in sample BXS-5. The chromatogram indicated the presence of non-target background components. The matrix interference prevented adequate resolution of the target compound at the normal limit. The result was flagged to indicate the matrix interference.

Sample Notes and Discussion:

The results reported for Acenaphthene in sample BXS-2 may contain a slight bias. The chromatograms indicated the presence of non-target background components. The matrix interference may have resulted in a slight high bias in the affected samples. The results were flagged with "X" to indicate the issue.

No other anomalies associated with the analysis of these samples were observed.

Approved by

Lisa A. Jameighini



Chain of Custody

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577- 7222 Fax (360)636- 1068
www.alsglobal.com



1317 South 13th, Kelso, WA 98626

(360) 577-7222 FAX (360) 636-1068

SR#

K1413045

PAGE

4

OF

7

Project Name: JH Baxter - Arlington Project Number:

Project Manager: Company: JH Baxter

Company/Address: 85 N Baxter Rd Phone: 541-689-3801

City, State, Zip: Eugene, OR 97402 FAX: 541-689-0769

Sampler's Signature: Scott Dahr

Sample I.D.	Date	Time	LAB ID	Matrix	Number of Containers	Analysis Requested	REMARKS
BXS-1	11-17	1416		water	2	X	X
BXS-2	1	1503		water	2	X	X
BXS-5	1	1416		water	2	X	X

Landfill & Site

Investigation program

TURNAROUND REQUIREMENTS

24 hr 48 hr 5 day
 Standard (21 days)Provide FAX Preliminary Results
Requested Report Date:

Invoice Information

P.O. #

Bill to: JH Baxter & Co
San Mateo CA, 94402

RELINQUISHED BY:

Signature: Scott Dahr

Printed Name: SCOTT Dahrke

Firm: JH Baxter

Date/Time: 11-18-14 0740

REPORT REQUIREMENTS

I. Routine Report: Results, Method Blank,
Surrogate, as requiredX II. Report Dup., MS, MSD as required
III. Data Validation Report (includes

raw data)

IV. CLP Deliverable Report

V. EDD

Comments/Special Instructions:

Questions? - Please Call Steve Barnett 503-639-3400

RECEIVED BY:

Signature: Al R.

Printed Name: Alyson

Firm: ALS

Date/Time: 11/19/14 0950

RECEIVED BY:

Signature: _____

Printed Name: _____

Firm: _____

Date/Time: _____



PC CLEMF

Cooler Receipt and Preservation Form

Client / Project: JH BAXTER Service Request K14 13045Received: 11/19/14 Opened: 11/19/14 By: A Unloaded: 11/19/14 By: A

1. Samples were received via? Mail Fed Ex UPS DHL PDX Courier Hand Delivered
2. Samples were received in: (circle) Cooler Box Envelope Other _____ NA
3. Were custody seals on coolers? NA Y N If yes, how many and where? 1 FRONT
If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID (NA)	Tracking Number	NA	Filed
1.9	2.1	2.6	2.8	0.2	327		547897374990		
3.5	3.6	4.5	4.6	0.1	340		577897393642		
2.4	2.4	N/P	—	-0	357		547897393620		
4.3	4.2	N/P	—	-0.1	298		547897393594		

4. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves _____
5. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
6. Did all bottles arrive in good condition (unbroken)? Indicate in the table below. NA Y N
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
8. Did all sample labels and tags agree with custody papers? Indicate major discrepancies in the table on page 2. NA Y N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
10. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N
11. Were VOA vials received without headspace? Indicate in the table below. NA Y N
12. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head- space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions:



ALS Environmental

Pentachlorophenol

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577- 7222 Fax (360)636- 1068
www.alsglobal.com

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1413045

Cover Page - Organic Analysis Data Package
Pentachlorophenol

Sample Name	Lab Code	Date Collected	Date Received
BXS-1	K1413045-001	11/17/2014	11/19/2014
BXS-2	K1413045-002	11/17/2014	11/19/2014
BXS-5	K1413045-003	11/17/2014	11/19/2014

Analytical Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington
 Sample Matrix: Water

Service Request: K1413045
 Date Collected: 11/17/2014
 Date Received: 11/19/2014

Pentachlorophenol

Sample Name: BX5-1 Units: ug/L
 Lab Code: K1413045-001 Basis: NA
 Extraction Method: Method Level: Low
 Analysis Method: 8151M

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	40		0.50	0.16	1	11/20/14	11/28/14	KWG1415698	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	104	33-114	11/28/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
Sample Matrix: Water

Service Request: K1413045
Date Collected: 11/17/2014
Date Received: 11/19/2014

Pentachlorophenol

Sample Name: BX5-2 **Units:** ug/L
Lab Code: K1413045-002 **Basis:** NA
Extraction Method: Method **Level:** Low
Analysis Method: 8151M

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	ND	U	0.50	0.16	1	11/20/14	11/28/14	KWG1415698	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	105	33-114	11/28/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington
 Sample Matrix: Water

Service Request: K1413045
 Date Collected: 11/17/2014
 Date Received: 11/19/2014

Pentachlorophenol

Sample Name: BXS-5 Units: ug/L
 Lab Code: K1413045-003 Basis: NA
 Extraction Method: Method Level: Low
 Analysis Method: 8151M

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	50		0.50	0.16	1	11/20/14	11/28/14	KWG1415698	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	95	33-114	11/28/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington
 Sample Matrix: Water

Service Request: K1413045
 Date Collected: NA
 Date Received: NA

Pentachlorophenol

Sample Name: Method Blank
 Lab Code: KWG1415698-4

Units: ug/L
 Basis: NA

Extraction Method: Method Mod
 Analysis Method: 8151M

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	ND	U	0.50	0.16	1	11/20/14	11/28/14	KWG1415698	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	89	33-114	11/28/14	Acceptable

Comments:

Client: JH Baxter & Company
Project: JH Baxter - Arlington
Sample Matrix: Water

Surrogate Recovery Summary
Pentachlorophenol

Extraction Method: Method Units: Percent
Analysis Method: 8151M Level: Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>
BXS-1	K1413045-001	104
BXS-2	K1413045-002	105
BXS-5	K1413045-003	95
Batch QC	K1413047-003	103
Method Blank	KWG1415698-4	89
Batch QCMS	KWG1415698-1	101
Batch QCDMS	KWG1415698-2	83
Lab Control Sample	KWG1415698-3	98

Surrogate Recovery Control Limits (%)

Sur1 = 4-Bromo-2,6-dichlorophenol 33-114

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

QA/QC Report

Client: JH Baxter & Company
Project: JH Baxter - Arlington
Sample Matrix: Water

Service Request: K1413045
Date Extracted: 11/20/2014
Date Analyzed: 11/28/2014

Matrix Spike/Duplicate Matrix Spike Summary
Pentachlorophenol

Sample Name:	Batch QC	Units:	ug/L
Lab Code:	K1413047-003	Basis:	NA
Extraction Method:	Method Mod	Level:	Low
Analysis Method:	8151M	Extraction Lot:	KWG1415698

Analyte Name	Sample Result	Batch QCMS			Batch QCDMS					
		KWG1415698-1			KWG1415698-2					
		Matrix Spike			Duplicate Matrix Spike					
Pentachlorophenol	590	388E	10.0	-2031 #	364E	10.0	-2267 #	40-106	6	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: JH Baxter & Company
Project: JH Baxter - Arlington
Sample Matrix: Water

Service Request: K1413045
Date Extracted: 11/20/2014
Date Analyzed: 11/28/2014

Lab Control Spike Summary
Pentachlorophenol

Extraction Method: Method Mod
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1415698

Lab Control Sample
KWG1415698-3
Lab Control Spike

Analyte Name	Result	Spike	%Rec	%Rec
		Amount	Limits	
Pentachlorophenol	7.20	10.0	72	44-106

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: JH Baxter & Company
Project: JH Baxter - Arlington
Sample Matrix: Water

Service Request: K1413045
Date Extracted: 11/20/2014
Date Analyzed: 11/28/2014
Time Analyzed: 21:27

Method Blank Summary
Pentachlorophenol

Sample Name: Method Blank
Lab Code: KWG1415698-4

Extraction Method: Method Mod
Analysis Method: 8151M

Instrument ID: GC36
File ID: J:\GC36\DATA\112814P\1128000051.D

Level: Low
Extraction Lot: KWG1415698

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
BXS-1	K1413045-001	J:\GC36\DATA\112814P\1128000027.D	11/28/14	16:08
BXS-2	K1413045-002	J:\GC36\DATA\112814P\1128000028.D	11/28/14	16:21
BXS-5	K1413045-003	J:\GC36\DATA\112814P\1128000029.D	11/28/14	16:35
Batch QC	K1413047-003	J:\GC36\DATA\112814P\1128000030.D	11/28/14	16:48
Batch QCMS	KWG1415698-1	J:\GC36\DATA\112814P\1128000031.D	11/28/14	17:01
Batch QCDMS	KWG1415698-2	J:\GC36\DATA\112814P\1128000032.D	11/28/14	17:15
Lab Control Sample	KWG1415698-3	J:\GC36\DATA\112814P\1128000050.D	11/28/14	21:14
Batch QC	K1413047-003	J:\GC36\DATA\120214P\1202000007.D	12/02/14	12:20

QA/QC Report

Client: JH Baxter & Company
Project: JH Baxter - Arlington
Sample Matrix: Water

Service Request: K1413045
Date Extracted: 11/20/2014
Date Analyzed: 11/28/2014
Time Analyzed: 21:14

Lab Control Sample Summary
Pentachlorophenol

Sample Name:	Lab Control Sample	Instrument ID:	GC36
Lab Code:	KWG1415698-3	File ID:	J:\GC36\DATA\112814P\1128000050.D
Extraction Method:	Method Mod	Level:	Low
Analysis Method:	8151M	Extraction Lot:	KWG1415698

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
BXS-1	K1413045-001	J:\GC36\DATA\112814P\1128000027.D	11/28/14	16:08
BXS-2	K1413045-002	J:\GC36\DATA\112814P\1128000028.D	11/28/14	16:21
BXS-5	K1413045-003	J:\GC36\DATA\112814P\1128000029.D	11/28/14	16:35
Batch QC	K1413047-003	J:\GC36\DATA\112814P\1128000030.D	11/28/14	16:48
Batch QCMS	KWG1415698-1	J:\GC36\DATA\112814P\1128000031.D	11/28/14	17:01
Batch QCDMS	KWG1415698-2	J:\GC36\DATA\112814P\1128000032.D	11/28/14	17:15
Method Blank	KWG1415698-4	J:\GC36\DATA\112814P\1128000051.D	11/28/14	21:27
Batch QC	K1413047-003	J:\GC36\DATA\120214P\1202000007.D	12/02/14	12:20

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413045
 Calibration Date: 11/27/2014

Initial Calibration Summary
Pentachlorophenol

Calibration ID: CAL13703
 Instrument ID: GC36

Column: RTX-CLP

Level ID	File ID
A	J:\GC36\DATA\112714P\11270000502.D
B	J:\GC36\DATA\112714P\11270000503.D
C	J:\GC36\DATA\112714P\11270000504.D
D	J:\GC36\DATA\112714P\11270000505.D
E	J:\GC36\DATA\112714P\11270000506.D
F	J:\GC36\DATA\112714P\11270000507.D

Analyte Name	Level			Level			Level			Level			Level		
	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF
Pentachlorophenol	A	0.95	7.19E+5	B	2.4	5.90E+5	C	4.8	5.02E+5	D	9.5	4.79E+5	E	24	4.01E+5
	F	48	3.80E+5	G	95	3.94E+5	H	240	3.60E+5	I	480	3.64E+5	J	950	3.67E+5
4-Bromo-2,6-dichlorophenol				B	2.5	2.64E+5	C	5.0	2.64E+5	D	10	2.52E+5	E	25	2.43E+5
	F	50	2.37E+5	G	100	2.83E+5	H	250	2.79E+5	I	500	2.82E+5			

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413045
 Calibration Date: 11/27/2014

Initial Calibration Summary

Pentachlorophenol

Calibration ID: CAL13703
 Instrument ID: GC36

Column: RTX-CLP

Analyte Name	Compound Type	Calibration Evaluation				
		Fit Type	Eval.	Eval. Result	Q	Control Criteria
Pentachlorophenol	MS	Quadratic	COD	1.000	≥ 0.99	
4-Bromo-2,6-dichlorophenol	SURR	Quadratic	COD	0.998	≥ 0.99	

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1413045
Calibration Date: 11/27/2014
Date Analyzed: 11/27/2014

Second Source Calibration Verification
Pentachlorophenol

Calibration Type: External Standard
Analysis Method: 8151M

Calibration ID: CAL13703
Units: ug/L

File ID: J:\GC36\DATA\112714P\11270000512.D

Column ID: RTX-CLP

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	480	480	456000	371000	NA	1	± 20 %	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413045
 Calibration Date: 11/27/2014

Initial Calibration Summary
Pentachlorophenol

Calibration ID: CAL13703
 Instrument ID: GC36

Column: RTX-CLP2

Level ID	File ID	Level ID	File ID
A	J:\GC36\DATA\112714P\11270000502.D\11270000502c.d	G	J:\GC36\DATA\112714P\11270000508.D\11270000508c.d
B	J:\GC36\DATA\112714P\11270000503.D\11270000503c.d	H	J:\GC36\DATA\112714P\11270000509.D\11270000509c.d
C	J:\GC36\DATA\112714P\11270000504.D\11270000504c.d	I	J:\GC36\DATA\112714P\11270000510.D\11270000510c.d
D	J:\GC36\DATA\112714P\11270000505.D\11270000505c.d	J	J:\GC36\DATA\112714P\11270000511.D\11270000511c.d
E	J:\GC36\DATA\112714P\11270000506.D\11270000506c.d		
F	J:\GC36\DATA\112714P\11270000507.D\11270000507c.d		

Analyte Name	Level			Level			Level			Level			Level		
	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF
Pentachlorophenol	A	0.95	1.90E+6	B	2.4	1.38E+6	C	4.8	1.31E+6	D	9.5	1.07E+6	E	24	8.87E+5
	F	48	8.25E+5	G	95	8.83E+5	H	240	8.38E+5	I	480	8.63E+5	J	950	8.93E+5
4-Bromo-2,6-dichlorophenol				B	2.5	4.09E+5	C	5.0	4.30E+5	D	10	4.50E+5	E	25	5.00E+5
	F	50	5.23E+5	G	100	6.50E+5	H	250	6.59E+5	I	500	6.75E+5			

Results flagged with an asterisk (*) indicate values outside control criteria.

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1413045
Calibration Date: 11/27/2014

Initial Calibration Summary
Pentachlorophenol

Calibration ID: CAL13703
Instrument ID: GC36

Column: RTX-CLP2

Analyte Name	Compound Type	Calibration Evaluation				
		Fit Type	Eval.	Result	Q	Control Criteria
Pentachlorophenol	MS	Quadratic	COD	1.000		≥ 0.99
4-Bromo-2,6-dichlorophenol	SURR	Quadratic	COD	0.995		≥ 0.99

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413045
 Calibration Date: 11/27/2014
 Date Analyzed: 11/27/2014

Second Source Calibration Verification
Pentachlorophenol

Calibration Type: External Standard
 Analysis Method: 8151M

Calibration ID: CAL13703
 Units: ug/L

File ID: J:\GC36\DATA\112714P\11270000512.D\11270000512c.d

Column ID: RTX-CLP2

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	480	490	1080000	884000	NA	2	± 20 %	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413045
 Date Analyzed: 11/28/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type:	External Standard	Calibration Date:	11/27/2014
Analysis Method:	8151M	Calibration ID:	CAL13703
		Analysis Lot:	KWG1415840
		Units:	ug/L

File ID: J:\GC36\DATA\112814P\1128000023.D Column ID: RTX-CLP

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	480	470	456000	365000	NA	-1	± 20	Quadratic
4-Bromo-2,6-dichlorophenol	500	530	263000	309000	NA	6	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1413045
Date Analyzed: 11/28/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type: External Standard
Analysis Method: 8151M

Calibration Date: 11/27/2014
Calibration ID: CAL13703
Analysis Lot: KWG1415840
Units: ug/L

File ID: J:\GC36\DATA\112814P\1128000023.D\1128000023.C.

Column ID: RTX-CLP2

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	480	490	1080000	895000	NA	3	± 20	Quadratic
4-Bromo-2,6-dichlorophenol	500	520	537000	743000	NA	4	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1413045
Date Analyzed: 11/28/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type:	External Standard	Calibration Date:	11/27/2014
Analysis Method:	8151M	Calibration ID:	CAL13703
		Analysis Lot:	KWG1415840
		Units:	ug/L

File ID: J:\GC36\DATA\112814P\1128000035.D **Column ID:** RTX-CLP

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	480	470	456000	366000	NA	-1	± 20	Quadratic
4-Bromo-2,6-dichlorophenol	500	520	263000	304000	NA	4	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413045
 Date Analyzed: 11/28/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type: External Standard
 Analysis Method: 8151M

Calibration Date: 11/27/2014
 Calibration ID: CAL13703
 Analysis Lot: KWG1415840
 Units: ug/L

File ID: J:\GC36\DATA\112814P\1128000035.D\1128000035.C.

Column ID: RTX-CLP2

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	480	490	1080000	891000	NA	3	± 20	Quadratic
4-Bromo-2,6-dichlorophenol	500	520	537000	743000	NA	4	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1413045
Date Analyzed: 11/28/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type:	External Standard	Calibration Date:	11/27/2014
Analysis Method:	8151M	Calibration ID:	CAL13703
		Analysis Lot:	KWG1415840
		Units:	ug/L

File ID: J:\GC36\DATA\112814P\1128000047.D **Column ID:** RTX-CLP

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	480	460	456000	356000	NA	-3	± 20	Quadratic
4-Bromo-2,6-dichlorophenol	500	510	263000	298000	NA	3	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413045
 Date Analyzed: 11/28/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type: External Standard
 Analysis Method: 8151M

Calibration Date: 11/27/2014
 Calibration ID: CAL13703
 Analysis Lot: KWG1415840
 Units: ug/L

File ID: J:\GC36\DATA\112814P\1128000047.D\1128000047.C.

Column ID: RTX-CLP2

Analyte Name	Expected	Result	Average	CCV	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	480	480	1080000	872000	NA	1	± 20	Quadratic
4-Bromo-2,6-dichlorophenol	500	510	537000	730000	NA	2	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413045
 Date Analyzed: 11/28/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type: External Standard
 Analysis Method: 8151M

Calibration Date: 11/27/2014
 Calibration ID: CAL13703
 Analysis Lot: KWG1415840
 Units: ug/L

File ID: J:\GC36\DATA\112814P\1128000062.D

Column ID: RTX-CLP

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	480	440	456000	342000	NA	-7	± 20	Quadratic
4-Bromo-2,6-dichlorophenol	500	500	263000	288000	NA	0	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413045
 Date Analyzed: 11/28/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type: External Standard
 Analysis Method: 8151M

Calibration Date: 11/27/2014
 Calibration ID: CAL13703
 Analysis Lot: KWG1415840
 Units: ug/L

File ID: J:\GC36\DATA\112814P\1128000062.D\1128000062.C.

Column ID: RTX-CLP2

Analyte Name	Expected	Result	Average	CCV	%D	%Drift	Criteria	Curve Fit
			RF	RF				
Pentachlorophenol	480	470	1080000	847000	NA	-2	± 20	Quadratic
4-Bromo-2,6-dichlorophenol	500	500	537000	708000	NA	0	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1413045
Date Analyzed: 12/02/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type: External Standard
Analysis Method: 8151M

Calibration Date: 11/27/2014
Calibration ID: CAL13703
Analysis Lot: KWG1415867
Units: ug/L

File ID: J:\GC36\DATA\120214P\1202000003.D

Column ID: RTX-CLP

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	48	44	456000	356000	NA	-6	± 20	Quadratic
4-Bromo-2,6-dichlorophenol	50	55	263000	282000	NA	10	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1413045
Date Analyzed: 12/02/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type:	External Standard	Calibration Date:	11/27/2014
Analysis Method:	8151M	Calibration ID:	CAL13703
		Analysis Lot:	KWG1415867
		Units:	ug/L

File ID: J:\GC36\DATA\120214P\120200003.D\120200003C. **Column ID:** RTX-CLP2

Analyte Name	Expected	Result	Average	CCV	%D	%Drift	Criteria	Curve Fit
			RF	RF				
Pentachlorophenol	48	44	1080000	801000	NA	-7	\pm 20	Quadratic
4-Bromo-2,6-dichlorophenol	50	60	537000	659000	NA	20	\pm 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413045
 Date Analyzed: 12/02/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type: External Standard
 Analysis Method: 8151M

Calibration Date: 11/27/2014
 Calibration ID: CAL13703
 Analysis Lot: KWG1415867
 Units: ug/L

File ID: J:\GC36\DATA\120214P\1202000010.D

Column ID: RTX-CLP

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	48	40	456000	321000	NA	-16	± 20	Quadratic
4-Bromo-2,6-dichlorophenol	50	45	263000	227000	NA	-11	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413045
 Date Analyzed: 12/02/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type: External Standard
 Analysis Method: 8151M

Calibration Date: 11/27/2014
 Calibration ID: CAL13703
 Analysis Lot: KWG1415867
 Units: ug/L

File ID: J:\GC36\DATA\120214P\1202000010.D\1202000010C.

Column ID: RTX-CLP2

Analyte Name	Expected	Result	Average	CCV	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	48	39	1080000	710000	NA	-18	± 20	Quadratic
4-Bromo-2,6-dichlorophenol	50	47	537000	505000	NA	-7	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413045

Analysis Run Log
Pentachlorophenol

Analysis Method: 8151M

Analysis Lot: KWG1415840
Instrument ID: GC36
Column: RTX-CLP

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
28000003.D	Continuing Calibration Verification	KWG1415840-1	11/28/2014	10:49		11/28/2014	10:59
28000004.D	Instrument Blank	KWG1415840-8	11/28/2014	11:02		11/28/2014	11:12
28000005.D	ZZZZZZ	ZZZZZZ	11/28/2014	11:16		11/28/2014	11:25
28000006.D	ZZZZZZ	ZZZZZZ	11/28/2014	11:29		11/28/2014	11:39
28000007.D	ZZZZZZ	ZZZZZZ	11/28/2014	11:42		11/28/2014	11:52
28000008.D	ZZZZZZ	ZZZZZZ	11/28/2014	11:56		11/28/2014	12:05
28000009.D	ZZZZZZ	ZZZZZZ	11/28/2014	12:09		11/28/2014	12:19
28000010.D	ZZZZZZ	ZZZZZZ	11/28/2014	12:22		11/28/2014	12:32
28000011.D	Continuing Calibration Verification	KWG1415840-2	11/28/2014	12:36		11/28/2014	12:45
28000012.D	Instrument Blank	KWG1415840-9	11/28/2014	12:49		11/28/2014	12:59
28000013.D	ZZZZZZ	ZZZZZZ	11/28/2014	13:02		11/28/2014	13:12
28000014.D	ZZZZZZ	ZZZZZZ	11/28/2014	13:15		11/28/2014	13:25
28000015.D	ZZZZZZ	ZZZZZZ	11/28/2014	13:29		11/28/2014	13:39
28000016.D	ZZZZZZ	ZZZZZZ	11/28/2014	13:42		11/28/2014	13:52
28000017.D	ZZZZZZ	ZZZZZZ	11/28/2014	13:55		11/28/2014	14:05
28000018.D	ZZZZZZ	ZZZZZZ	11/28/2014	14:09		11/28/2014	14:18
28000019.D	ZZZZZZ	ZZZZZZ	11/28/2014	14:22		11/28/2014	14:32
28000020.D	ZZZZZZ	ZZZZZZ	11/28/2014	14:35		11/28/2014	14:45
28000021.D	ZZZZZZ	ZZZZZZ	11/28/2014	14:49		11/28/2014	14:58
28000022.D	ZZZZZZ	ZZZZZZ	11/28/2014	15:02		11/28/2014	15:12
28000023.D	Continuing Calibration Verification	KWG1415840-3	11/28/2014	15:15		11/28/2014	15:25
28000024.D	Instrument Blank	KWG1415840-10	11/28/2014	15:28		11/28/2014	15:38
28000025.D	ZZZZZZ	ZZZZZZ	11/28/2014	15:42		11/28/2014	15:51
28000026.D	ZZZZZZ	ZZZZZZ	11/28/2014	15:55		11/28/2014	16:05
28000027.D	BXS-1	K1413045-001	11/28/2014	16:08		11/28/2014	16:18
28000028.D	BXS-2	K1413045-002	11/28/2014	16:21		11/28/2014	16:31
28000029.D	BXS-5	K1413045-003	11/28/2014	16:35		11/28/2014	16:45
28000030.D	Batch QC	K1413047-003	11/28/2014	16:48		11/28/2014	16:58
28000031.D	Batch QCMS	KWG1415698-1	11/28/2014	17:01		11/28/2014	17:11
28000032.D	Batch QCDMS	KWG1415698-2	11/28/2014	17:15		11/28/2014	17:24
28000033.D	ZZZZZZ	ZZZZZZ	11/28/2014	17:28		11/28/2014	17:38
28000034.D	ZZZZZZ	ZZZZZZ	11/28/2014	17:41		11/28/2014	17:51
28000035.D	Continuing Calibration Verification	KWG1415840-4	11/28/2014	17:54		11/28/2014	18:04
28000036.D	Instrument Blank	KWG1415840-11	11/28/2014	18:08		11/28/2014	18:18

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413045

Analysis Run Log
Pentachlorophenol

Analysis Method: 8151M

Analysis Lot: KWG1415840

Instrument ID: GC36

Column: RTX-CLP

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
28000037.D	ZZZZZZ	ZZZZZZ	11/28/2014	18:21		11/28/2014	18:31
28000038.D	ZZZZZZ	ZZZZZZ	11/28/2014	18:34		11/28/2014	18:44
28000039.D	ZZZZZZ	ZZZZZZ	11/28/2014	18:48		11/28/2014	18:57
28000040.D	ZZZZZZ	ZZZZZZ	11/28/2014	19:01		11/28/2014	19:11
28000041.D	ZZZZZZ	ZZZZZZ	11/28/2014	19:14		11/28/2014	19:24
28000043.D	ZZZZZZ	ZZZZZZ	11/28/2014	19:41		11/28/2014	19:50
28000044.D	ZZZZZZ	ZZZZZZ	11/28/2014	19:54		11/28/2014	20:04
28000045.D	ZZZZZZ	ZZZZZZ	11/28/2014	20:07		11/28/2014	20:17
28000046.D	ZZZZZZ	ZZZZZZ	11/28/2014	20:21		11/28/2014	20:30
28000047.D	Continuing Calibration Verification	KWG1415840-5	11/28/2014	20:34		11/28/2014	20:44
28000048.D	Instrument Blank	KWG1415840-12	11/28/2014	20:47		11/28/2014	20:57
28000049.D	ZZZZZZ	ZZZZZZ	11/28/2014	21:00		11/28/2014	21:10
28000050.D	Lab Control Sample	KWG1415698-3	11/28/2014	21:14		11/28/2014	21:23
28000051.D	Method Blank	KWG1415698-4	11/28/2014	21:27		11/28/2014	21:37
28000052.D	ZZZZZZ	ZZZZZZ	11/28/2014	21:40		11/28/2014	21:50
28000053.D	ZZZZZZ	ZZZZZZ	11/28/2014	21:53		11/28/2014	22:03
28000054.D	ZZZZZZ	ZZZZZZ	11/28/2014	22:07		11/28/2014	22:16
28000055.D	ZZZZZZ	ZZZZZZ	11/28/2014	22:20		11/28/2014	22:30
28000056.D	ZZZZZZ	ZZZZZZ	11/28/2014	22:33		11/28/2014	22:43
28000057.D	ZZZZZZ	ZZZZZZ	11/28/2014	22:47		11/28/2014	22:56
28000058.D	ZZZZZZ	ZZZZZZ	11/28/2014	23:00		11/28/2014	23:10
28000059.D	ZZZZZZ	ZZZZZZ	11/28/2014	23:13		11/28/2014	23:23
28000060.D	ZZZZZZ	ZZZZZZ	11/28/2014	23:26		11/28/2014	23:36
28000061.D	ZZZZZZ	ZZZZZZ	11/28/2014	23:40		11/28/2014	23:49
28000062.D	Continuing Calibration Verification	KWG1415840-6	11/28/2014	23:53		11/29/2014	00:03
28000063.D	Instrument Blank	KWG1415840-13	11/29/2014	00:06		11/29/2014	00:16
28000064.D	ZZZZZZ	ZZZZZZ	11/29/2014	00:19		11/29/2014	00:29
28000065.D	ZZZZZZ	ZZZZZZ	11/29/2014	00:33		11/29/2014	00:43
28000066.D	ZZZZZZ	ZZZZZZ	11/29/2014	00:46		11/29/2014	00:56
28000067.D	ZZZZZZ	ZZZZZZ	11/29/2014	00:59		11/29/2014	01:09
28000068.D	ZZZZZZ	ZZZZZZ	11/29/2014	01:13		11/29/2014	01:22
28000069.D	ZZZZZZ	ZZZZZZ	11/29/2014	01:26		11/29/2014	01:36
28000070.D	ZZZZZZ	ZZZZZZ	11/29/2014	01:39		11/29/2014	01:49
28000071.D	ZZZZZZ	ZZZZZZ	11/29/2014	01:52		11/29/2014	02:02

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413045

Analysis Run Log
Pentachlorophenol

Analysis Method: 8151M

Analysis Lot: KWG1415840
 Instrument ID: GC36
 Column: RTX-CLP

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
28000072.D	ZZZZZZ	ZZZZZZ	11/29/2014	02:06		11/29/2014	02:16
28000073.D	ZZZZZZ	ZZZZZZ	11/29/2014	02:19		11/29/2014	02:29
28000074.D	Continuing Calibration Verification	KWG1415840-7	11/29/2014	02:32		11/29/2014	02:42
28000075.D	Instrument Blank	KWG1415840-14	11/29/2014	02:46		11/29/2014	02:55

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413045

Analysis Run Log
 Pentachlorophenol

Analysis Method: 8151M

Analysis Lot: KWG1415867

Instrument ID: GC36

Column: RTX-CLP

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
02000003.D	Continuing Calibration Verification	KWG1415867-1	12/2/2014	11:27		12/2/2014	11:37
02000004.D	Instrument Blank	KWG1415867-3	12/2/2014	11:41		12/2/2014	11:50
02000005.D	ZZZZZZ	ZZZZZZ	12/2/2014	11:54		12/2/2014	12:04
02000006.D	ZZZZZZ	ZZZZZZ	12/2/2014	12:07		12/2/2014	12:17
02000007.D	Batch QC	K1413047-003	12/2/2014	12:20		12/2/2014	12:30
02000008.D	ZZZZZZ	ZZZZZZ	12/2/2014	12:33		12/2/2014	12:43
02000009.D	ZZZZZZ	ZZZZZZ	12/2/2014	12:46		12/2/2014	12:56
02000010.D	Continuing Calibration Verification	KWG1415867-2	12/2/2014	13:00		12/2/2014	13:09

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington
 Sample Matrix: Water

Service Request: K1413045
 Date Extracted: 11/20/2014

Extraction Prep Log
Pentachlorophenol

Extraction Method: Method
 Analysis Method: 8151M

Extraction Lot: KWG1415698
 Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
BXS-1	K1413045-001	11/17/14	11/19/14	5mL	1mL	NA	
BXS-2	K1413045-002	11/17/14	11/19/14	5mL	1mL	NA	
BXS-5	K1413045-003	11/17/14	11/19/14	5mL	1mL	NA	
Method Blank	KWG1415698-4	NA	NA	5mL	1mL	NA	
Batch QC	K1413047-003	NA	NA	5mL	1mL	NA	
Batch QCDL	K1413047-003	NA	NA	5mL	1mL	NA	
Batch QCMS	KWG1415698-1	NA	NA	5mL	1mL	NA	
Batch QCDMS	KWG1415698-2	NA	NA	5mL	1mL	NA	
Lab Control Sample	KWG1415698-3	NA	NA	5mL	1mL	NA	

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

Confirmation Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
Sample Matrix: Water

Service Request: K1413045
Date Collected: 11/17/2014
Date Received: 11/19/2014
Date Extracted: 11/20/2014

Pentachlorophenol

Sample Name: BXS-1
Lab Code: K1413045-001
Extraction Method: Method
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol	0.50	0.16	40	42	4.9		1	11/28/14

Confirmation Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
Sample Matrix: Water

Service Request: K1413045
Date Collected: 11/17/2014
Date Received: 11/19/2014
Date Extracted: 11/20/2014

Pentachlorophenol

Sample Name: BXS-5
Lab Code: K1413045-003
Extraction Method: Method
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol	0.50	0.16	50	53	5.8		1	11/28/14



ALS Environmental

Polynuclear Aromatic Hydrocarbons

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1413045

Cover Page - Organic Analysis Data Package
Polynuclear Aromatic Hydrocarbons

Sample Name	Lab Code	Date Collected	Date Received
BXS-1	K1413045-001	11/17/2014	11/19/2014
BXS-2	K1413045-002	11/17/2014	11/19/2014
BXS-5	K1413045-003	11/17/2014	11/19/2014

Analytical Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington
 Sample Matrix: Water

Service Request: K1413045
 Date Collected: 11/17/2014
 Date Received: 11/19/2014

Polynuclear Aromatic Hydrocarbons

Sample Name:	BXS-1	Units:	ug/L
Lab Code:	K1413045-001	Basis:	NA
Extraction Method:	EPA 3520C	Level:	Low
Analysis Method:	8270D SIM		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	0.0049 J	0.019	0.0038	1	11/20/14	12/02/14	KWG1415502	
2-Methylnaphthalene	ND U	0.019	0.0023	1	11/20/14	12/02/14	KWG1415502	
Acenaphthylene	ND U	0.019	0.0034	1	11/20/14	12/02/14	KWG1415502	
Acenaphthene	ND U	0.019	0.0044	1	11/20/14	12/02/14	KWG1415502	
Fluorene	ND U	0.019	0.0038	1	11/20/14	12/02/14	KWG1415502	
Phenanthrene	ND U	0.019	0.0050	1	11/20/14	12/02/14	KWG1415502	
Anthracene	0.0072 J	0.019	0.0036	1	11/20/14	12/02/14	KWG1415502	
Fluoranthene	ND U	0.019	0.010	1	11/20/14	12/02/14	KWG1415502	
Pyrene	ND U	0.019	0.0053	1	11/20/14	12/02/14	KWG1415502	
Benz(a)anthracene	ND U	0.019	0.0026	1	11/20/14	12/02/14	KWG1415502	
Chrysene	ND U	0.019	0.0034	1	11/20/14	12/02/14	KWG1415502	
Benzo(b)fluoranthene	ND U	0.019	0.0041	1	11/20/14	12/02/14	KWG1415502	
Benzo(k)fluoranthene	ND U	0.019	0.0030	1	11/20/14	12/02/14	KWG1415502	
Benzo(a)pyrene	ND U	0.019	0.0043	1	11/20/14	12/02/14	KWG1415502	
Indeno(1,2,3-cd)pyrene	ND U	0.019	0.0026	1	11/20/14	12/02/14	KWG1415502	
Dibenz(a,h)anthracene	ND U	0.019	0.0025	1	11/20/14	12/02/14	KWG1415502	
Benzo(g,h,i)perylene	ND U	0.019	0.0029	1	11/20/14	12/02/14	KWG1415502	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	89	46-114	12/02/14	Acceptable
Fluoranthene-d10	90	51-121	12/02/14	Acceptable
Terphenyl-d14	86	58-140	12/02/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington
 Sample Matrix: Water

Service Request: K1413045
 Date Collected: 11/17/2014
 Date Received: 11/19/2014

Polynuclear Aromatic Hydrocarbons

Sample Name:	BXS-2	Units:	ug/L
Lab Code:	K1413045-002	Basis:	NA
Extraction Method:	EPA 3520C	Level:	Low
Analysis Method:	8270D SIM		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	0.045	0.019	0.0038	1	11/20/14	12/02/14	KWG1415502	
2-Methylnaphthalene	ND U	0.019	0.0023	1	11/20/14	12/02/14	KWG1415502	
Acenaphthylene	ND U	0.019	0.0034	1	11/20/14	12/02/14	KWG1415502	
Acenaphthene	0.0059 JX	0.019	0.0044	1	11/20/14	12/02/14	KWG1415502	
Fluorene	ND U	0.019	0.0038	1	11/20/14	12/02/14	KWG1415502	
Phenanthrene	ND U	0.019	0.0050	1	11/20/14	12/02/14	KWG1415502	
Anthracene	0.0074 J	0.019	0.0036	1	11/20/14	12/02/14	KWG1415502	
Fluoranthene	ND U	0.019	0.010	1	11/20/14	12/02/14	KWG1415502	
Pyrene	ND U	0.019	0.0053	1	11/20/14	12/02/14	KWG1415502	
Benz(a)anthracene	ND U	0.019	0.0026	1	11/20/14	12/02/14	KWG1415502	
Chrysene	ND U	0.019	0.0034	1	11/20/14	12/02/14	KWG1415502	
Benzo(b)fluoranthene	ND U	0.019	0.0041	1	11/20/14	12/02/14	KWG1415502	
Benzo(k)fluoranthene	ND U	0.019	0.0030	1	11/20/14	12/02/14	KWG1415502	
Benzo(a)pyrene	ND U	0.019	0.0043	1	11/20/14	12/02/14	KWG1415502	
Indeno(1,2,3-cd)pyrene	ND U	0.019	0.0026	1	11/20/14	12/02/14	KWG1415502	
Dibenz(a,h)anthracene	ND U	0.019	0.0025	1	11/20/14	12/02/14	KWG1415502	
Benzo(g,h,i)perylene	ND U	0.019	0.0029	1	11/20/14	12/02/14	KWG1415502	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	88	46-114	12/02/14	Acceptable
Fluoranthene-d10	92	51-121	12/02/14	Acceptable
Terphenyl-d14	87	58-140	12/02/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington
 Sample Matrix: Water

Service Request: K1413045
 Date Collected: 11/17/2014
 Date Received: 11/19/2014

Polynuclear Aromatic Hydrocarbons

Sample Name:	BXS-5	Units:	ug/L
Lab Code:	K1413045-003	Basis:	NA
Extraction Method:	EPA 3520C	Level:	Low
Analysis Method:	8270D SIM		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	0.036	0.019	0.0038	1	11/20/14	12/02/14	KWG1415502	
2-Methylnaphthalene	ND U	0.019	0.0023	1	11/20/14	12/02/14	KWG1415502	
Acenaphthylene	ND U	0.019	0.0034	1	11/20/14	12/02/14	KWG1415502	
Acenaphthene	ND Ui	0.019	0.0050	1	11/20/14	12/02/14	KWG1415502	
Fluorene	0.0055 J	0.019	0.0038	1	11/20/14	12/02/14	KWG1415502	
Phenanthrene	ND U	0.019	0.0050	1	11/20/14	12/02/14	KWG1415502	
Anthracene	0.0083 J	0.019	0.0036	1	11/20/14	12/02/14	KWG1415502	
Fluoranthene	ND U	0.019	0.010	1	11/20/14	12/02/14	KWG1415502	
Pyrene	ND U	0.019	0.0053	1	11/20/14	12/02/14	KWG1415502	
Benz(a)anthracene	0.0032 J	0.019	0.0026	1	11/20/14	12/02/14	KWG1415502	
Chrysene	ND U	0.019	0.0034	1	11/20/14	12/02/14	KWG1415502	
Benzo(b)fluoranthene	ND U	0.019	0.0041	1	11/20/14	12/02/14	KWG1415502	
Benzo(k)fluoranthene	ND U	0.019	0.0030	1	11/20/14	12/02/14	KWG1415502	
Benzo(a)pyrene	ND U	0.019	0.0043	1	11/20/14	12/02/14	KWG1415502	
Indeno(1,2,3-cd)pyrene	ND U	0.019	0.0026	1	11/20/14	12/02/14	KWG1415502	
Dibenz(a,h)anthracene	ND U	0.019	0.0025	1	11/20/14	12/02/14	KWG1415502	
Benzo(g,h,i)perylene	ND U	0.019	0.0029	1	11/20/14	12/02/14	KWG1415502	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	88	46-114	12/02/14	Acceptable
Fluoranthene-d10	91	51-121	12/02/14	Acceptable
Terphenyl-d14	87	58-140	12/02/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington
 Sample Matrix: Water

Service Request: K1413045
 Date Collected: NA
 Date Received: NA

Polynuclear Aromatic Hydrocarbons

Sample Name:	Method Blank	Units:	ug/L
Lab Code:	KWG1415502-3	Basis:	NA
Extraction Method:	EPA 3520C	Level:	Low
Analysis Method:	8270D SIM		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	ND U	0.019	0.0038	1	11/20/14	12/02/14	KWG1415502	
2-Methylnaphthalene	ND U	0.019	0.0023	1	11/20/14	12/02/14	KWG1415502	
Acenaphthylene	ND U	0.019	0.0034	1	11/20/14	12/02/14	KWG1415502	
Acenaphthene	ND U	0.019	0.0044	1	11/20/14	12/02/14	KWG1415502	
Fluorene	ND U	0.019	0.0038	1	11/20/14	12/02/14	KWG1415502	
Phenanthrene	ND U	0.019	0.0050	1	11/20/14	12/02/14	KWG1415502	
Anthracene	ND U	0.019	0.0036	1	11/20/14	12/02/14	KWG1415502	
Fluoranthene	ND U	0.019	0.010	1	11/20/14	12/02/14	KWG1415502	
Pyrene	ND U	0.019	0.0053	1	11/20/14	12/02/14	KWG1415502	
Benz(a)anthracene	0.0026 J	0.019	0.0026	1	11/20/14	12/02/14	KWG1415502	
Chrysene	ND U	0.019	0.0034	1	11/20/14	12/02/14	KWG1415502	
Benzo(b)fluoranthene	ND U	0.019	0.0041	1	11/20/14	12/02/14	KWG1415502	
Benzo(k)fluoranthene	ND U	0.019	0.0030	1	11/20/14	12/02/14	KWG1415502	
Benzo(a)pyrene	ND U	0.019	0.0043	1	11/20/14	12/02/14	KWG1415502	
Indeno(1,2,3-cd)pyrene	ND U	0.019	0.0026	1	11/20/14	12/02/14	KWG1415502	
Dibenz(a,h)anthracene	ND U	0.019	0.0025	1	11/20/14	12/02/14	KWG1415502	
Benzo(g,h,i)perylene	ND U	0.019	0.0029	1	11/20/14	12/02/14	KWG1415502	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	81	46-114	12/02/14	Acceptable
Fluoranthene-d10	88	51-121	12/02/14	Acceptable
Terphenyl-d14	85	58-140	12/02/14	Acceptable

Comments: _____

Client: JH Baxter & Company
 Project: JH Baxter - Arlington
 Sample Matrix: Water

Service Request: K1413045

Surrogate Recovery Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method: EPA 3520C
 Analysis Method: 8270D SIM

Units: Percent
 Level: Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>	<u>Sur2</u>	<u>Sur3</u>
BXS-1	K1413045-001	89	90	86
BXS-2	K1413045-002	88	92	87
BXS-5	K1413045-003	88	91	87
Method Blank	KWG1415502-3	81	88	85
Lab Control Sample	KWG1415502-1	91	95	92
Duplicate Lab Control Sample	KWG1415502-2	91	94	91

Surrogate Recovery Control Limits (%)

Sur1 = Fluorene-d10	46-114
Sur2 = Fluoranthene-d10	51-121
Sur3 = Terphenyl-d14	58-140

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

QA/QC Report

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1413045
Date Analyzed: 12/02/2014
Time Analyzed: 09:45

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS14\DATA\120214\1202F002.D
Instrument ID: MS14
Analysis Method: 8270D SIM

Lab Code: KWG1415843-2
Analysis Lot: KWG1415843

	Naphthalene-d8		Acenaphthene-d10		Phenanthrene-d10	
	<u>Area</u>	<u>RT</u>	<u>Area</u>	<u>RT</u>	<u>Area</u>	<u>RT</u>
Results ==>	166,106	4.79	88,356	6.39	178,498	7.63
Upper Limit ==>	332,212	5.29	176,712	6.89	356,996	8.13
Lower Limit ==>	83,053	4.29	44,178	5.89	89,249	7.13
ICAL Result ==>	181,561	4.79	97,711	6.39	192,888	7.63

Associated Analyses

BXS-1	K1413045-001	180,459	4.80	102,504	6.39	197,505	7.64
BXS-2	K1413045-002	174,263	4.80	100,086	6.39	189,153	7.63

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Report

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413045
 Date Analyzed: 12/02/2014
 Time Analyzed: 09:45

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS14\DATA\120214\1202F002.D
 Instrument ID: MS14
 Analysis Method: 8270D SIM

Lab Code: KWG1415843-2
 Analysis Lot: KWG1415843

	Chrysene-d12		Perylene-d12	
	<u>Area</u>	<u>RT</u>	<u>Area</u>	<u>RT</u>
Results ==>	200,295	10.21	209,540	13.40
Upper Limit ==>	400,590	10.71	419,080	13.90
Lower Limit ==>	100,148	9.71	104,770	12.90
ICAL Result ==>	213,597	10.21	235,643	13.40

Associated Analyses

BXS-1	K1413045-001	234,345	10.22	246,217	13.43
BXS-2	K1413045-002	224,203	10.22	237,236	13.44

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Report

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413045
 Date Analyzed: 12/02/2014
 Time Analyzed: 20:05

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS14\DATA\120214\1202F027.D
 Instrument ID: MS14
 Analysis Method: 8270D SIM

Lab Code: KWG1415964-2
 Analysis Lot: KWG1415964

	Naphthalene-d8		Acenaphthene-d10		Phenanthrene-d10	
	Area	RT	Area	RT	Area	RT
Results ==>	160,705	4.80	90,403	6.39	181,911	7.63
Upper Limit ==>	321,410	5.30	180,806	6.89	363,822	8.13
Lower Limit ==>	80,353	4.30	45,202	5.89	90,956	7.13
ICAL Result ==>	181,561	4.79	97,711	6.39	192,888	7.63

Associated Analyses

Method Blank	KWG1415502-3	173,515	4.80	99,640	6.39	195,650	7.63
Lab Control Sample	KWG1415502-1	169,589	4.80	93,037	6.39	184,592	7.63
Duplicate Lab Control Sample	KWG1415502-2	168,503	4.80	92,140	6.39	183,486	7.63
BXS-5	K1413045-003	167,508	4.80	95,269	6.39	182,501	7.64

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Report

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1413045
Date Analyzed: 12/02/2014
Time Analyzed: 20:05

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS14\DATA\120214\1202F027.D
Instrument ID: MS14
Analysis Method: 8270D SIM

Lab Code: KWG1415964-2
Analysis Lot: KWG1415964

	Chrysene-d12		Perylene-d12	
	<u>Area</u>	<u>RT</u>	<u>Area</u>	<u>RT</u>
Results ==>	208,849	10.22	228,329	13.43
Upper Limit ==>	417,698	10.72	456,658	13.93
Lower Limit ==>	104,425	9.72	114,165	12.93
ICAL Result ==>	213,597	10.21	235,643	13.40

Associated Analyses

Method Blank	KWG1415502-3	226,419	10.22	228,802	13.42
Lab Control Sample	KWG1415502-1	205,148	10.22	218,449	13.42
Duplicate Lab Control Sample	KWG1415502-2	203,574	10.22	213,017	13.42
BXS-5	K1413045-003	213,916	10.22	217,416	13.42

Results flagged with an asterisk (*) indicate values outside control criteria.

Client: JH Baxter & Company
Project: JH Baxter - Arlington
Sample Matrix: Water

Service Request: K1413045
Date Extracted: 11/20/2014
Date Analyzed: 12/02/2014

Lab Control Spike/Duplicate Lab Control Spike Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method: EPA 3520C **Units:** ug/L
Analysis Method: 8270D SIM **Basis:** NA
Level: Low
Extraction Lot: KWG1415502

Analyte Name	Lab Control Sample			Duplicate Lab Control Sample			%Rec Limits	RPD	RPD Limit			
	KWG1415502-1			KWG1415502-2								
	Lab Control Spike			Duplicate Lab Control Spike								
Analyte Name	Result	Spike Amount	%Rec	Result	Spike Amount	%Rec						
Naphthalene	2.34	2.50	94	2.26	2.50	90	39-110	4	30			
2-Methylnaphthalene	2.23	2.50	89	2.13	2.50	85	39-115	5	30			
Acenaphthylene	2.36	2.50	94	2.28	2.50	91	44-115	3	30			
Acenaphthene	2.38	2.50	95	2.30	2.50	92	44-113	3	30			
Fluorene	2.44	2.50	98	2.37	2.50	95	48-118	3	30			
Phenanthrene	2.50	2.50	100	2.43	2.50	97	47-120	3	30			
Anthracene	2.43	2.50	97	2.41	2.50	97	44-117	1	30			
Fluoranthene	2.59	2.50	104	2.53	2.50	101	48-128	2	30			
Pyrene	2.60	2.50	104	2.53	2.50	101	42-133	2	30			
Benz(a)anthracene	2.59	2.50	104	2.54	2.50	102	48-125	2	30			
Chrysene	2.61	2.50	104	2.56	2.50	102	50-128	2	30			
Benzo(b)fluoranthene	2.72	2.50	109	2.68	2.50	107	49-131	2	30			
Benzo(k)fluoranthene	2.62	2.50	105	2.59	2.50	103	54-131	1	30			
Benzo(a)pyrene	2.81	2.50	112	2.77	2.50	111	43-134	1	30			
indeno(1,2,3-cd)pyrene	3.14	2.50	125	3.07	2.50	123	45-133	2	30			
Dibenz(a,h)anthracene	2.68	2.50	107	2.70	2.50	108	49-133	1	30			
Benzo(g,h,i)perylene	2.69	2.50	108	2.66	2.50	106	51-124	1	30			

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: JH Baxter & Company
Project: JH Baxter - Arlington
Sample Matrix: Water

Service Request: K1413045
Date Extracted: 11/20/2014
Date Analyzed: 12/02/2014
Time Analyzed: 20:30

Method Blank Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	Method Blank	Instrument ID:	MS14
Lab Code:	KWG1415502-3	File ID:	J:\MS14\DATA\120214\1202F028.D
Extraction Method:	EPA 3520C	Level:	Low
Analysis Method:	8270D SIM	Extraction Lot:	KWG1415502

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
BXS-1	K1413045-001	J:\MS14\DATA\120214\1202F024.D	12/02/14	18:49
BXS-2	K1413045-002	J:\MS14\DATA\120214\1202F025.D	12/02/14	19:14
Lab Control Sample	KWG1415502-1	J:\MS14\DATA\120214\1202F029.D	12/02/14	20:55
Duplicate Lab Control Sample	KWG1415502-2	J:\MS14\DATA\120214\1202F030.D	12/02/14	21:20
BXS-5	K1413045-003	J:\MS14\DATA\120214\1202F031.D	12/02/14	21:45

Client: JH Baxter & Company
Project: JH Baxter - Arlington
Sample Matrix: Water

Service Request: K1413045
Date Extracted: 11/20/2014
Date Analyzed: 12/02/2014
Time Analyzed: 20:55

Lab Control Sample Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	Lab Control Sample	Instrument ID:	MS14
Lab Code:	KWG1415502-1	File ID:	J:\MS14\DATA\120214\1202F029.D
Extraction Method:	EPA 3520C	Level:	Low
Analysis Method:	8270D SIM	Extraction Lot:	KWG1415502

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
BXS-1	K1413045-001	J:\MS14\DATA\120214\1202F024.D	12/02/14	18:49
BXS-2	K1413045-002	J:\MS14\DATA\120214\1202F025.D	12/02/14	19:14
Method Blank	KWG1415502-3	J:\MS14\DATA\120214\1202F028.D	12/02/14	20:30
BXS-5	K1413045-003	J:\MS14\DATA\120214\1202F031.D	12/02/14	21:45

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413045
 Date Analyzed: 12/02/2014
 Time Analyzed: 09:21

Tune Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS14\DATA\120214\1202F001.D

Instrument ID: MS14

Column:

 Analysis Method: 8270D SIM
 Analysis Lot: KWG1415843

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	24.8	24480	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	28.6	28304	PASS
70	69	0	2	0.3	89	PASS
127	198	10	80	41.8	41344	PASS
197	198	0	2	0.0	0	PASS
198	442	30	100	42.3	98888	PASS
199	198	5	9	6.9	6776	PASS
275	198	10	60	36.7	36320	PASS
365	442	1	50	2.4	5608	PASS
441	443	0	100	78.2	35216	PASS
442	442	100	100	100.0	233848	PASS
443	442	15	24	19.2	45010	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG1415843-2	J:\MS14\DATA\120214\1202F002.D	12/02/2014	09:45	
BXS-1	K1413045-001	J:\MS14\DATA\120214\1202F024.D	12/02/2014	18:49	
BXS-2	K1413045-002	J:\MS14\DATA\120214\1202F025.D	12/02/2014	19:14	

Results flagged with an asterisk (*) indicate the analysis performed outside specified tune window

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413045
 Date Analyzed: 12/02/2014
 Time Analyzed: 19:38

Tune Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS14\DATA\120214\1202F026.D

Instrument ID: MS14

Column:

Analysis Method: 8270D SIM
 Analysis Lot: KWG1415964

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	25.7	24797	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	28.0	27065	PASS
70	69	0	2	1.1	304	PASS
127	198	10	80	44.1	42584	PASS
197	198	0	2	0.0	0	PASS
198	442	30	100	42.0	96656	PASS
199	198	5	9	7.6	7325	PASS
275	198	10	60	35.6	34440	PASS
365	442	1	50	2.0	4559	PASS
441	443	0	100	71.5	32227	PASS
442	442	100	100	100.0	229952	PASS
443	442	15	24	19.6	45072	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG1415964-2	J:\MS14\DATA\120214\1202F027.D	12/02/2014	20:05	
Method Blank	KWG1415502-3	J:\MS14\DATA\120214\1202F028.D	12/02/2014	20:30	
Lab Control Sample	KWG1415502-1	J:\MS14\DATA\120214\1202F029.D	12/02/2014	20:55	
Duplicate Lab Control Sample	KWG1415502-2	J:\MS14\DATA\120214\1202F030.D	12/02/2014	21:20	
XS-5	K1413045-003	J:\MS14\DATA\120214\1202F031.D	12/02/2014	21:45	

Results flagged with an asterisk (*) indicate the analysis performed outside specified tune window

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413045
 Calibration Date: 12/01/2014

Initial Calibration Summary
Polynuclear Aromatic Hydrocarbons

Calibration ID: CAL13704
 Instrument ID: MS14

Column: MS

Level ID	File ID	Level ID	File ID
A	J:\MS14\DATA\120114\1201F011.D	G	J:\MS14\DATA\120114\1201F017.D
B	J:\MS14\DATA\120114\1201F012.D	H	J:\MS14\DATA\120114\1201F018.D
C	J:\MS14\DATA\120114\1201F013.D	I	J:\MS14\DATA\120114\1201F019.D
D	J:\MS14\DATA\120114\1201F014.D	J	J:\MS14\DATA\120114\1201F020.D
E	J:\MS14\DATA\120114\1201F015.D		
F	J:\MS14\DATA\120114\1201F016.D		

Analyte Name	Level			Level			Level			Level			Level		
	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF
Naphthalene	A	2.0	0.980	B	4.0	1.08	C	8.0	1.07	D	20	1.12	E	100	1.10
	F	200	1.08	G	400	1.07	H	1000	1.03	I	1600	1.01	J	2000	1.01
2-Methylnaphthalene	A	2.0	0.820	B	4.0	0.827	C	8.0	0.773	D	20	0.795	E	100	0.786
	F	200	0.772	G	400	0.763	H	1000	0.726	I	1600	0.715	J	2000	0.717
Acenaphthylene	A	2.0	2.10	B	4.0	2.12	C	8.0	2.02	D	20	2.09	E	100	2.13
	F	200	2.15	G	400	2.14	H	1000	2.03	I	1600	1.95	J	2000	1.94
Acenaphthene	A	2.0	1.24	B	4.0	1.29	C	8.0	1.22	D	20	1.25	E	100	1.24
	F	200	1.24	G	400	1.24	H	1000	1.18	I	1600	1.15	J	2000	1.15
Fluorene	A	2.0	1.60	B	4.0	1.64	C	8.0	1.57	D	20	1.60	E	100	1.58
	F	200	1.56	G	400	1.54	H	1000	1.45	I	1600	1.41	J	2000	1.41
Phenanthrene	A	2.0	1.18	B	4.0	1.22	C	8.0	1.15	D	20	1.19	E	100	1.17
	F	200	1.16	G	400	1.16	H	1000	1.09	I	1600	1.05	J	2000	1.04
Anthracene	A	2.0	1.14	B	4.0	1.16	C	8.0	1.08	D	20	1.15	E	100	1.17
	F	200	1.17	G	400	1.16	H	1000	1.10	I	1600	1.05	J	2000	1.04
Fluoranthene	A	2.0	1.36	B	4.0	1.37	C	8.0	1.34	D	20	1.38	E	100	1.41
	F	200	1.38	G	400	1.36	H	1000	1.26	I	1600	1.22	J	2000	1.20
Pyrene	A	2.0	1.33	B	4.0	1.34	C	8.0	1.24	D	20	1.28	E	100	1.30
	F	200	1.29	G	400	1.32	H	1000	1.25	I	1600	1.21	J	2000	1.18
Benz(a)anthracene	A	2.0	1.39	B	4.0	1.26	C	8.0	1.15	D	20	1.13	E	100	1.14
	F	200	1.16	G	400	1.19	H	1000	1.16	I	1600	1.13	J	2000	1.12
Chrysene	A	2.0	1.13	B	4.0	1.11	C	8.0	1.07	D	20	1.11	E	100	1.13
	F	200	1.13	G	400	1.15	H	1000	1.12	I	1600	1.10	J	2000	1.09
Benzo(b)fluoranthene	A	2.0	1.31	B	4.0	1.23	C	8.0	1.13	D	20	1.14	E	100	1.19
	F	200	1.20	G	400	1.21	H	1000	1.17	I	1600	1.14	J	2000	1.13
Benzo(k)fluoranthene	A	2.0	1.26	B	4.0	1.19	C	8.0	1.15	D	20	1.17	E	100	1.24
	F	200	1.24	G	400	1.22	H	1000	1.18	I	1600	1.16	J	2000	1.16
Benzo(a)pyrene	A	2.0	0.949	B	4.0	0.966	C	8.0	0.900	D	20	0.929	E	100	0.986
	F	200	1.01	G	400	1.04	H	1000	1.04	I	1600	1.03	J	2000	1.03

Results flagged with an asterisk (*) indicate values outside control criteria.

+ SPCC Compound

‡ CCC Compound

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413045
 Calibration Date: 12/01/2014

Initial Calibration Summary
Polynuclear Aromatic Hydrocarbons

Calibration ID: CAL13704
 Instrument ID: MS14

Column: MS

Analyte Name	Level			Level			Level			Level			Level		
	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF
Indeno(1,2,3-cd)pyrene	A	2.0	0.860	B	4.0	0.833	C	8.0	0.780	D	20	0.801	E	100	0.883
	F	200	0.912	G	400	0.926	H	1000	0.896	I	1600	0.871	J	2000	0.874
Dibenz(a,h)anthracene	A	2.0	1.15	B	4.0	1.04	C	8.0	1.02	D	20	0.890	E	100	0.953
	F	200	1.00	G	400	1.02	H	1000	0.982	I	1600	0.950	J	2000	0.955
Benzo(g,h,i)perylene	A	2.0	1.17	B	4.0	1.22	C	8.0	1.20	D	20	1.15	E	100	1.17
	F	200	1.18	G	400	1.17	H	1000	1.07	I	1600	1.01	J	2000	1.00
Fluorene-d10	A	2.0	1.25	B	4.0	1.27	C	8.0	1.18	D	20	1.19	E	100	1.20
	F	200	1.20	G	400	1.19	H	1000	1.12	I	1600	1.09	J	2000	1.09
Fluoranthene-d10	A	2.0	1.12	B	4.0	1.15	C	8.0	1.09	D	20	1.12	E	100	1.17
	F	200	1.18	G	400	1.18	H	1000	1.11	I	1600	1.06	J	2000	1.05
Terphenyl-d14	A	2.0	0.933	B	4.0	0.921	C	8.0	0.857	D	20	0.879	E	100	0.883
	F	200	0.879	G	400	0.880	H	1000	0.789	I	1600	0.767	J	2000	0.741

Results flagged with an asterisk (*) indicate values outside control criteria.

SPCC Compound

‡ CCC Compound

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413045
 Calibration Date: 12/01/2014

Initial Calibration Summary
Polynuclear Aromatic Hydrocarbons

Calibration ID: CAL13704
 Instrument ID: MS14

Column: MS

Analyte Name	Compound Type	Calibration Evaluation				RRF Evaluation		
		Fit Type	Eval.	Result	Q	Control Criteria	Average RRF	Q
Naphthalene	MS	AverageRF	% RSD	4.2		≤ 20	1.06	0.70
2-Methylnaphthalene	MS	AverageRF	% RSD	5.2		≤ 20	0.769	0.40
Acenaphthylene	MS	AverageRF	% RSD	3.7		≤ 20	2.07	0.90
Acenaphthene	MS	AverageRF	% RSD	3.8		≤ 20	1.22	0.90
Fluorene	MS	AverageRF	% RSD	5.4		≤ 20	1.54	0.90
Phenanthrene	MS	AverageRF	% RSD	5.4		≤ 20	1.14	0.70
Anthracene	MS	AverageRF	% RSD	4.5		≤ 20	1.12	0.70
Fluoranthene	MS	AverageRF	% RSD	5.6		≤ 20	1.33	0.60
Pyrene	MS	AverageRF	% RSD	4.1		≤ 20	1.27	0.60
Benz(a)anthracene	MS	AverageRF	% RSD	7.1		≤ 20	1.18	0.80
Chrysene	MS	AverageRF	% RSD	1.9		≤ 20	1.11	0.70
Benzo(b)fluoranthene	MS	AverageRF	% RSD	4.9		≤ 20	1.19	0.70
Benzo(k)fluoranthene	MS	AverageRF	% RSD	3.4		≤ 20	1.20	0.70
Benzo(a)pyrene	MS	AverageRF	% RSD	5.1		≤ 20	0.988	0.70
Indeno(1,2,3-cd)pyrene	MS	AverageRF	% RSD	5.4		≤ 20	0.864	0.50
Dibenz(a,h)anthracene	MS	AverageRF	% RSD	7.1		≤ 20	0.997	0.40
Benzo(g,h,i)perylene	MS	AverageRF	% RSD	6.9		≤ 20	1.13	0.50
Fluorene-d10	SURR	AverageRF	% RSD	5.2		≤ 20	1.18	0.01
Fluoranthene-d10	SURR	AverageRF	% RSD	4.2		≤ 20	1.12	0.01
Terphenyl-d14	SURR	AverageRF	% RSD	7.6		≤ 20	0.853	0.01

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413045
 Calibration Date: 12/01/2014
 Date Analyzed: 12/01/2014

Second Source Calibration Verification
Polynuclear Aromatic Hydrocarbons

Calibration Type: Internal Standard Calibration ID: CAL13704
 Analysis Method: 8270D SIM Units: ng/ml
 File ID: J:\MS14\DATA\120114\1201F021.D

Analyte Name	Expected	Result	Average	SSV	%D	%Drift	Criteria	Curve Fit
			RF	RF				
Naphthalene	400	410	1.06	1.08	2	NA	± 30 %	AverageRF
β-Methylnaphthalene	400	390	0.769	0.742	-4	NA	± 30 %	AverageRF
Acenaphthylene	400	410	2.07	2.14	4	NA	± 30 %	AverageRF
Acenaphthene	400	390	1.22	1.20	-2	NA	± 30 %	AverageRF
Fluorene	400	390	1.54	1.49	-3	NA	± 30 %	AverageRF
Phenanthrene	400	400	1.14	1.13	-1	NA	± 30 %	AverageRF
Anthracene	400	400	1.12	1.13	1	NA	± 30 %	AverageRF
Fluoranthene	400	390	1.33	1.31	-1	NA	± 30 %	AverageRF
Pyrene	400	390	1.27	1.25	-2	NA	± 30 %	AverageRF
Benz(a)anthracene	400	390	1.18	1.14	-3	NA	± 30 %	AverageRF
Chrysene	400	400	1.11	1.12	1	NA	± 30 %	AverageRF
Benzo(b)fluoranthene	400	390	1.19	1.17	-1	NA	± 30 %	AverageRF
Benzo(k)fluoranthene	400	390	1.20	1.18	-2	NA	± 30 %	AverageRF
Benzo(a)pyrene	400	420	0.988	1.04	5	NA	± 30 %	AverageRF
Indeno(1,2,3-cd)pyrene	400	390	0.864	0.834	-3	NA	± 30 %	AverageRF
Dibenz(a,h)anthracene	400	360	0.997	0.902	-10	NA	± 30 %	AverageRF
Benzo(g,h,i)perylene	400	370	1.13	1.05	-7	NA	± 30 %	AverageRF

results flagged with an asterisk (*) indicate values outside control criteria.

SPCC Compound

‡ CCC Compound

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413045
 Date Analyzed: 12/02/2014

Continuing Calibration Verification Summary
Polynuclear Aromatic Hydrocarbons

Calibration Type: Internal Standard
 Analysis Method: 8270D SIM

Calibration Date: 12/01/2014
 Calibration ID: CAL13704
 Analysis Lot: KWG1415843
 Units: ng/ml

File ID: J:\MS14\DATA\120214\1202F002.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	400	420	0.70	1.06	1.12	6	NA	± 20	AverageRF
2-Methylnaphthalene	400	410	0.40	0.769	0.787	2	NA	± 20	AverageRF
Acenaphthylene	400	450	0.90	2.07	2.31	12	NA	± 20	AverageRF
Acenaphthene	400	430	0.90	1.22	1.30	6	NA	± 20	AverageRF
Fluorene	400	420	0.90	1.54	1.63	6	NA	± 20	AverageRF
Phenanthrene	400	420	0.70	1.14	1.20	5	NA	± 20	AverageRF
Anthracene	400	430	0.70	1.12	1.20	7	NA	± 20	AverageRF
Fluoranthene	400	420	0.60	1.33	1.39	5	NA	± 20	AverageRF
Pyrene	400	420	0.60	1.27	1.34	5	NA	± 20	AverageRF
Benz(a)anthracene	400	400	0.80	1.18	1.19	1	NA	± 20	AverageRF
Chrysene	400	420	0.70	1.11	1.16	4	NA	± 20	AverageRF
Benzo(b)fluoranthene	400	420	0.70	1.19	1.26	6	NA	± 20	AverageRF
Benzo(k)fluoranthene	400	430	0.70	1.20	1.29	7	NA	± 20	AverageRF
Benzo(a)pyrene	400	440	0.70	0.988	1.08	10	NA	± 20	AverageRF
Indeno(1,2,3-cd)pyrene	400	420	0.50	0.864	0.906	5	NA	± 20	AverageRF
Dibenz(a,h)anthracene	400	410	0.40	0.997	1.02	3	NA	± 20	AverageRF
Benzo(g,h,i)perylene	400	420	0.50	1.13	1.20	6	NA	± 20	AverageRF
Fluorene-d10	400	440	0.01	1.18	1.29	9	NA	± 20	AverageRF
Fluoranthene-d10	400	450	0.01	1.12	1.26	12	NA	± 20	AverageRF
Terphenyl-d14	400	430	0.01	0.853	0.914	7	NA	± 20	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413045
 Date Analyzed: 12/02/2014

Continuing Calibration Verification Summary
Polynuclear Aromatic Hydrocarbons

Calibration Type: Internal Standard
 Analysis Method: 8270D SIM

Calibration Date: 12/01/2014
 Calibration ID: CAL13704
 Analysis Lot: KWG1415964
 Units: ng/ml

File ID: J:\MS14\DATA\120214\1202F027.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	400	430	0.70	1.06	1.14	8	NA	± 20	AverageRF
2-Methylnaphthalene	400	430	0.40	0.769	0.819	6	NA	± 20	AverageRF
Acenaphthylene	400	440	0.90	2.07	2.30	11	NA	± 20	AverageRF
Acenaphthene	400	420	0.90	1.22	1.29	5	NA	± 20	AverageRF
Fluorene	400	420	0.90	1.54	1.60	4	NA	± 20	AverageRF
Phenanthrene	400	410	0.70	1.14	1.18	4	NA	± 20	AverageRF
Anthracene	400	420	0.70	1.12	1.19	6	NA	± 20	AverageRF
Fluoranthene	400	410	0.60	1.33	1.38	4	NA	± 20	AverageRF
Pyrene	400	410	0.60	1.27	1.31	3	NA	± 20	AverageRF
Benz(a)anthracene	400	420	0.80	1.18	1.24	4	NA	± 20	AverageRF
Chrysene	400	400	0.70	1.11	1.13	1	NA	± 20	AverageRF
Benzo(b)fluoranthene	400	420	0.70	1.19	1.25	5	NA	± 20	AverageRF
Benzo(k)fluoranthene	400	410	0.70	1.20	1.22	2	NA	± 20	AverageRF
Benzo(a)pyrene	400	450	0.70	0.988	1.11	12	NA	± 20	AverageRF
Indeno(1,2,3-cd)pyrene	400	500	0.50	0.864	1.08	25 *	NA	± 20	AverageRF
Dibenz(a,h)anthracene	400	430	0.40	0.997	1.06	6	NA	± 20	AverageRF
Benzo(g,h,i)perylene	400	420	0.50	1.13	1.19	5	NA	± 20	AverageRF
Fluorene-d10	400	430	0.01	1.18	1.27	8	NA	± 20	AverageRF
Fluoranthene-d10	400	450	0.01	1.12	1.27	13	NA	± 20	AverageRF
Terphenyl-d14	400	440	0.01	0.853	0.941	10	NA	± 20	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413045

Analysis Run Log
Polynuclear Aromatic Hydrocarbons

Analysis Method: 8270D SIM

 Analysis Lot: KWG1415843
 Instrument ID: MS14

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
1202F001.D	GC/MS Tuning - Decafluorotriphenylphosphine	KWG1415843-1	12/2/2014	09:21		12/2/2014	09:41
1202F002.D	Continuing Calibration Verification	KWG1415843-2	12/2/2014	09:45		12/2/2014	10:03
1202F003.D	ZZZZZZ	ZZZZZZ	12/2/2014	10:10		12/2/2014	10:28
1202F004.D	ZZZZZZ	ZZZZZZ	12/2/2014	10:34		12/2/2014	10:52
1202F005.D	ZZZZZZ	ZZZZZZ	12/2/2014	10:58		12/2/2014	11:16
1202F006.D	ZZZZZZ	ZZZZZZ	12/2/2014	11:23		12/2/2014	11:41
1202F007.D	ZZZZZZ	ZZZZZZ	12/2/2014	11:47		12/2/2014	12:05
1202F008.D	ZZZZZZ	ZZZZZZ	12/2/2014	12:12		12/2/2014	12:30
1202F010.D	ZZZZZZ	ZZZZZZ	12/2/2014	13:01		12/2/2014	13:19
1202F011.D	ZZZZZZ	ZZZZZZ	12/2/2014	13:26		12/2/2014	13:44
1202F012.D	ZZZZZZ	ZZZZZZ	12/2/2014	13:51		12/2/2014	14:09
1202F013.D	ZZZZZZ	ZZZZZZ	12/2/2014	14:15		12/2/2014	14:33
1202F014.D	ZZZZZZ	ZZZZZZ	12/2/2014	14:40		12/2/2014	14:58
1202F015.D	ZZZZZZ	ZZZZZZ	12/2/2014	15:05		12/2/2014	15:23
1202F016.D	ZZZZZZ	ZZZZZZ	12/2/2014	15:30		12/2/2014	15:48
1202F017.D	ZZZZZZ	ZZZZZZ	12/2/2014	15:54		12/2/2014	16:12
1202F018.D	ZZZZZZ	ZZZZZZ	12/2/2014	16:19		12/2/2014	16:37
1202F019.D	ZZZZZZ	ZZZZZZ	12/2/2014	16:44		12/2/2014	17:02
1202F020.D	ZZZZZZ	ZZZZZZ	12/2/2014	17:09		12/2/2014	17:27
1202F021.D	ZZZZZZ	ZZZZZZ	12/2/2014	17:34		12/2/2014	17:52
1202F022.D	ZZZZZZ	ZZZZZZ	12/2/2014	17:59		12/2/2014	18:17
1202F023.D	ZZZZZZ	ZZZZZZ	12/2/2014	18:23		12/2/2014	18:41
1202F024.D	BXS-1	K1413045-001	12/2/2014	18:49		12/2/2014	19:07
1202F025.D	BXS-2	K1413045-002	12/2/2014	19:14		12/2/2014	19:32

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413045

Analysis Run Log
Polynuclear Aromatic Hydrocarbons

Analysis Method: 8270D SIM

 Analysis Lot: KWG1415964
 Instrument ID: MS14

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
1202F026.D	GC/MS Tuning - Decafluorotriphenylphosphine	KWG1415964-1	12/2/2014	19:38		12/2/2014	19:58
1202F027.D	Continuing Calibration Verification	KWG1415964-2	12/2/2014	20:05		12/2/2014	20:23
1202F028.D	Method Blank	KWG1415502-3	12/2/2014	20:30		12/2/2014	20:48
1202F029.D	Lab Control Sample	KWG1415502-1	12/2/2014	20:55		12/2/2014	21:13
1202F030.D	Duplicate Lab Control Sample	KWG1415502-2	12/2/2014	21:20		12/2/2014	21:38
1202F031.D	BXS-5	K1413045-003	12/2/2014	21:45		12/2/2014	22:03
1202F032.D	ZZZZZZ	ZZZZZZ	12/2/2014	22:10		12/2/2014	22:28
1202F033.D	ZZZZZZ	ZZZZZZ	12/2/2014	22:34		12/2/2014	22:52
1202F034.D	ZZZZZZ	ZZZZZZ	12/2/2014	22:59		12/2/2014	23:17
1202F035.D	ZZZZZZ	ZZZZZZ	12/2/2014	23:24		12/2/2014	23:42
1202F036.D	ZZZZZZ	ZZZZZZ	12/2/2014	23:48		12/3/2014	00:06
1202F037.D	ZZZZZZ	ZZZZZZ	12/3/2014	00:13		12/3/2014	00:31
1202F038.D	ZZZZZZ	ZZZZZZ	12/3/2014	00:37		12/3/2014	00:55
1202F039.D	ZZZZZZ	ZZZZZZ	12/3/2014	01:02		12/3/2014	01:20
1202F040.D	ZZZZZZ	ZZZZZZ	12/3/2014	01:26		12/3/2014	01:44
1202F041.D	ZZZZZZ	ZZZZZZ	12/3/2014	01:50		12/3/2014	02:08
1202F042.D	ZZZZZZ	ZZZZZZ	12/3/2014	02:14		12/3/2014	02:32
1202F044.D	ZZZZZZ	ZZZZZZ	12/3/2014	03:02		12/3/2014	03:20
202F045.D	ZZZZZZ	ZZZZZZ	12/3/2014	03:26		12/3/2014	03:44
202F046.D	ZZZZZZ	ZZZZZZ	12/3/2014	03:51		12/3/2014	04:09
1202F047.D	ZZZZZZ	ZZZZZZ	12/3/2014	04:15		12/3/2014	04:33
1202F048.D	ZZZZZZ	ZZZZZZ	12/3/2014	04:39		12/3/2014	04:57
1202F049.D	ZZZZZZ	ZZZZZZ	12/3/2014	05:03		12/3/2014	05:21
1202F050.D	ZZZZZZ	ZZZZZZ	12/3/2014	05:28		12/3/2014	05:46
202F051.D	ZZZZZZ	ZZZZZZ	12/3/2014	05:52		12/3/2014	06:10
1202F052.D	ZZZZZZ	ZZZZZZ	12/3/2014	06:17		12/3/2014	06:35
1202F053.D	ZZZZZZ	ZZZZZZ	12/3/2014	06:42		12/3/2014	07:00
202F054.D	ZZZZZZ	ZZZZZZ	12/3/2014	07:06		12/3/2014	07:24
1202F055.D	ZZZZZZ	ZZZZZZ	12/3/2014	07:31		12/3/2014	07:49

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis.

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington
 Sample Matrix: Water

Service Request: K1413045
 Date Extracted: 11/20/2014

Extraction Prep Log
Polynuclear Aromatic Hydrocarbons

Extraction Method: EPA 3520C
 Analysis Method: 8270D SIM

Extraction Lot: KWG1415502
 Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
BXS-1	K1413045-001	11/17/14	11/19/14	1060ml	5ml	NA	
BXS-2	K1413045-002	11/17/14	11/19/14	1060ml	5ml	NA	
BXS-5	K1413045-003	11/17/14	11/19/14	1060ml	5ml	NA	
Method Blank	KWG1415502-3	NA	NA	1060ml	5ml	NA	
Lab Control Sample	KWG1415502-1	NA	NA	1000ml	5ml	NA	
Duplicate Lab Control Sample	KWG1415502-2	NA	NA	1000ml	5ml	NA	

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis



ALS Environmental
ALS Group USA, Corp
1317 South 13th Avenue
Kelso, WA 98626
T: 1-360-577-7222
F: 1-360-636-1068
www.alsglobal.com

January 07, 2015

Analytical Report for Service Request No: K1413049

Scott Thielke
JH Baxter & Company
85 N. Baxter Road
P.O. Box 10797
Eugene, OR 97440

RE: J.H. Baxter-Arlington

Dear Scott:

Enclosed are the results of the sample(s) submitted to our laboratory on November 19, 2014. For your reference, these analyses have been assigned our service request number **K1413049**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3363. You may also contact me via email at Lisa.Domenighini@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

A handwritten signature in cursive ink that reads "Lisa A Domenighini".

Lisa Domenighini
Project Manager

Page 1 of 938

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEC UST	http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L14-51
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	Not available	-
Idaho DHW	http://www.healthandwelfare.idaho.gov/Health/Labs/CertificationDrinkingWaterLabs/tabid/1833/Default.aspx	-
ISO 17025	http://www.pjlabs.com/	L14-50
Louisiana DEQ	http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx	03016
Maine DHS	Not available	WA01276
Michigan DEQ	http://www.michigan.gov/deq/0,1607,7-135-3307_4131_4156---,00.html	9949
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Montana DPHHS	http://www.dphhs.mt.gov/publichealth/	CERT0047
Nevada DEP	http://ndep.nv.gov/bsdw/lbservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/oqa/	WA005
North Carolina DWQ	http://www.dwqlab.org/	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/envserv/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/cap/labs/lab-accreditation.html	C544
Wisconsin DNR	http://dnr.wi.gov/	998386840
Wyoming (EPA Region 8)	http://www.epa.gov/region8/water/dwhome/wyomingdi.html	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.



Case Narrative

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

ALS ENVIRONMENTAL

Client: JH Baxter & Company Service Request No.: K1413049
Project: J.H. Baxter - Arlington Date Received: 11/19/14
Sample Matrix: Water

Case Narrative

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV validation deliverables including summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Thirty-one samples were received for analysis at ALS Environmental on 11/19/14. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Pentachlorophenol by EPA Method 8151

Elevated Detection Limits:

Several samples required dilution due to the presence of elevated levels of target analyte. The reporting limits were adjusted to reflect the dilution.

Matrix Spike Recovery Exceptions:

The control criteria for matrix spike recovery of Pentachlorophenol for sample MW-36 were not applicable. The analyte concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

The control criteria for matrix spike recovery of Pentachlorophenol for sample Batch QC were not applicable. The analyte concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

No other anomalies associated with the analysis of these samples were observed.

Polynuclear Aromatic Hydrocarbons by EPA Method 8270

Calibration Verification Exceptions:

The following analytes were flagged as outside the control criterion for Continuing Calibration Verification (CCV) MS14\1202F027.D: Indeno(1,2,3-cd)pyrene. In accordance with the EPA Method, 80% or more of the CCV analytes must have passed within 20% of the true value. The remaining analytes are allowed a 40% difference as per the ALS SOP. The CCV met these criteria. No further corrective action was required.

Sample Notes and Discussion:

Insufficient sample volume was received to perform a Matrix Spike/Matrix Spike Duplicate (MS/MSD). A Laboratory Control Sample/Duplicate Laboratory Control Sample (LCS/DLCS) was analyzed and reported in lieu of the MS/MSD for these samples.

No other anomalies associated with the analysis of these samples were observed.

Approved by Lisa S. Jomeinghini



Chain of Custody

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577- 7222 Fax (360)636- 1068
www.alsglobal.com



1317 South 13th, Kelso, WA 98626

(360) 577-7222 FAX (360) 636-1068

SR# L1413049
PAGE 5 OF 7

Project Name: JH Baxter - Arlington Project Number:

Project Manager: Company: JH Baxter

Company/Address: 85 N Baxter Rd Phone: 541-689-3801

City, State, Zip: Eugene, OR 97402 FAX: 541-689-0769

Sampler's Signature: *Scott Shultz*

Sample I.D.	Date	Time	LAB ID	Matrix	Number of Containers	Analysis Requested		REMARKS									
						SM 4500-H+ B / Ph	8270 D / PAH SIM	1201 / Cond Spec	300.0 Chloride	300.0 / SO4	350.1 / Ammonia T	353.2 / NO2 NO3 T	SM 5220 C / COD T	SM 5310 / TOC T	SM 5550 B / Tan Lign	6010 C / Metals D	6020A / AS D
MW - 27	11-16	1437	1	water	1											X	
MW - 28	11-17	1349	2	water	1											X	
MW - 29	11-16	1542	3	water	1											X	
MW - 30	11-17	1333	4	water	2	X										X	
MW - 31	11-16	1657	5	water	1											X	
MW - 32	11-16	1339	6	water	1											X	
MW - 33	11-16	1520	7	water	1											X	
MW - 34	11-16	1607	8	water	1											X	
MW - 35	11-16	1410	9	water	2	X										X	
MW - 36	11-17	1325	10	water	2	X										X	
MW - 37	11-17	0930	11	water	2	X										X	

TURNAROUND REQUIREMENTS

24 hr 48 hr 5 day

 Standard (21 days)

Provide FAX Preliminary Results

Requested Report Date:

Invoice Information

P.O. #

Bill to: JH Baxter & Co

San Mateo CA, 94402

RELINQUISHED BY:

Signature: *Scott Shultz*Printed Name: *Scott Tuiake*

Firm: JH Baxter

Date/Time: 11/18/14 0740

REPORT REQUIREMENTS

I. Routine Report: Results, Method Blank,

Surrogate, as required

II. Report Dup., MS, MSD as required

III. Data Validation Report (includes

raw data)

IV. CLP Deliverable Report

V. EDD

Comments/Special Instructions:

Questions? - Please Call Steve Barnett 503-639-3400

RECEIVED BY:

Signature: *Al Hil*Printed Name: *Al Hil*

Firm: 1725

Date/Time: 11/19/14 0950

RELINQUISHED BY:

Signature: _____

Printed Name: _____

Firm: _____

Date/Time: _____

RECEIVED BY:

Signature: _____

Printed Name: _____

Firm: _____

Date/Time: _____



1317 South 13th, Kelso, WA 98626

(360) 577-7222 FAX (360) 636-1068

SR# K1413049
PAGE 6 OF 7

Project Name: JH Baxter - Arlington Project Number:

Project Manager: Company: JH Baxter

Company/Address: 85 N Baxter Rd Phone: 541-689-3801

City, State, Zip: Eugene, OR 97402 FAX: 541-689-0769

Sampler's Signature: *Scott Shuler*

Sample I.D.	Date	Time	LAB ID	Matrix	Number of Containers	Analysis Requested		REMARKS										
						SM 4500-H + B / Ph	8270 D / PAH SIM	120.1 / Cond Spec	300.0 Chloride	300.0 / SO4	350.1 / Ammonia T	353.2 / NO2 NO3 T	SM 5220 C / COD T	SM 5310 / TOC T	SM 5550 B / Tan Lign	6010 C / Metals D	6020A / ASD	8151 A Modified / PCP only
MW - 38	11-16	1640	12	water	1												X	
MW - 39	11-17	1613	13	water	1												X	
MW - 40	11-17	1310	14	water	1												X	
MW - 41	11-17	1235	15	water	1												X	
MW - 42	11-17	923	16	water	1												X	
MW - 43	11-17	925	17	water	1												X	
MW - 45	11-16	1457	18	water	1												X	No pH or conductivity
FIELD BLANK RINSATE	11-17	1700	19	water	2	x											X	on field blank
MW - 3	11-16	1326	20	water	2	x											X	

TURNAROUND REQUIREMENTS

24 hr 48 hr 5 day
 Standard (21 days)

Provide FAX Preliminary Results

Requested Report Date:

REPORT REQUIREMENTS

I. Routine Report: Results, Method Blank,
Surrogate, as required

II. Report Dup., MS, MSD as required

III. Data Validation Report (includes

raw data)

X IV. CLP Deliverable Report

V. EDD

Comments/Special Instructions:

Questions? - Please Call Steve Barnett 503-639-3400

Invoice Information

P.O. #

Bill to: JH Baxter & Co

San Mateo CA, 94402

RELINQUISHED BY:

Signature: *Scott Shuler*Printed Name: *Scott Shuler*

Firm: JH Baxter

Date/Time: 11-18-14 0740

RECEIVED BY:

Signature: *Ally Shuler*Printed Name: *Ally Shuler*Firm: *ASL*

Date/Time: 11/19/14 0950

RELINQUISHED BY:

Signature: _____

Printed Name: _____

Firm: _____

Date/Time: _____

RECEIVED BY:

Signature: _____

Printed Name: _____

Firm: _____

Date/Time: _____





1317 South 13th, Kelso, WA 98626

(360) 577-7222 FAX (360) 636-1068

SR#

K1413049

0H	7D	28D	1800	7D
----	----	-----	------	----

PAGE

7 OF 7

Project Name: JH Baxter - Arlington Project Number:

Project Manager: Company: JH Baxter

Company/Address: 85 N Baxter Rd Phone: 541-689-3801

City, State, Zip: Eugene, OR 97402 FAX: 541-689-0769

Sampler's Signature: Scott Shire

Sample I.D.	Date	Time	LAB ID	Matrix	Number of Containers	Analysis Requested	REMARKS
HCMW-7	11-17	0942	21	water	1	SM 4500-H+B / Ph	
MW-15	11-17	1058	22	water	2	8270 D / PAH SIM	X
MW-16	11-17	853	23	water	2	120.1 / Cond Spec	X
MW-17	11-17	1020	24	water	2	300.0 Chloride	X
MW-18	11-17	812	25	water	2	300.0 / SO4	X
MW-2	11-16	1449	26	water	2	350.1 / Ammonia T	X
MW-22	11-16	1238	27	water	1	353.2 / NO2 NO3 T	X
MW-23	11-16	1258	28	water	1	SMI 52220 C / COD T	
MW-24	11-16	1457	29	water	1	SMI 5310 / TOC T	
MW-25	11-16	1400	30	water	1	SMI 5550 B / Tan Lign	
MW-26	11-16	1417	31	water	1	6010 C / Metals D	
						6020 A / AS D	
							8151 A Modified / PCP only

TURNAROUND REQUIREMENTS

24 hr 48 hr 5 day

 Standard (21 days) Provide FAX Preliminary Results

Requested Report Date: _____

Invoice Information

P.O. # _____

Bill to: JH Baxter & Co

San Mateo CA, 94402

RELINQUISHED BY:

Signature: Scott Shire

Printed Name: Scott Shire

Firm: JH Baxter

Date/Time: 11-18-14 0740

REPORT REQUIREMENTS

I. Routine Report: Results, Method Blank, Surrogate, as required

II. Report Dup., MS, MSD as required

III. Data Validation Report (includes

raw data)

IV. CLP Deliverable Report

V. EDD

Comments/Special Instructions:

Questions? - Please Call Steve Barnett 503-639-3400

RECEIVED BY:

Signature: Scott Shire

Printed Name: Scott Shire

Firm: ALS

Date/Time: 11/19/14 0950

RELINQUISHED BY:

Signature: _____

Printed Name: _____

Firm: _____

Date/Time: _____

RECEIVED BY:

Signature: _____

Printed Name: _____

Firm: _____

Date/Time: _____

PC Lesa

Cooler Receipt and Preservation Form

Client / Project:

JH BAXTER

Service Request K14

13049

Received: 11/19/14Opened: 11/19/14By: MUnloaded: 11/19/14By: M1. Samples were received via? Mail Fed Ex UPS DHL PDX Courier Hand Delivered2. Samples were received in: (circle) Cooler Box Envelope Other _____ NA3. Were custody seals on coolers? NA Y N If yes, how many and where? 1 FRONTIf present, were custody seals intact? Y N If present, were they signed and dated? Y N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/GOC ID	Tracking Number	NA	File
1.9	2.1	2.6	2.8	0.2	327	(NA)	547897374990		
3.5	3.6	4.5	4.6	0.1	340		547897393642		
2.4	2.4	N/P	—	—	357		547897393620		
4.3	4.2	N/P	—	-0.1	298		547897393594		

4. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves _____5. Were custody papers properly filled out (ink, signed, etc.)? NA Y N6. Did all bottles arrive in good condition (unbroken)? Indicate in the table below. NA Y N7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N8. Did all sample labels and tags agree with custody papers? Indicate major discrepancies in the table on page 2. NA Y N9. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N10. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below NA Y N11. Were VOA vials received without headspace? Indicate in the table below. NA Y N12. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head- space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: _____



ALS Environmental

Pentachlorophenol

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington

Service Request: K1413049

Cover Page - Organic Analysis Data Package
Pentachlorophenol

Sample Name	Lab Code	Date Collected	Date Received
MW-27	K1413049-001	11/16/2014	11/19/2014
MW-28	K1413049-002	11/17/2014	11/19/2014
MW-29	K1413049-003	11/16/2014	11/19/2014
MW-30	K1413049-004	11/17/2014	11/19/2014
MW-31	K1413049-005	11/16/2014	11/19/2014
MW-32	K1413049-006	11/16/2014	11/19/2014
MW-33	K1413049-007	11/16/2014	11/19/2014
MW-34	K1413049-008	11/16/2014	11/19/2014
MW-35	K1413049-009	11/16/2014	11/19/2014
MW-36	K1413049-010	11/17/2014	11/19/2014
MW-37	K1413049-011	11/17/2014	11/19/2014
MW-38	K1413049-012	11/16/2014	11/19/2014
MW-39	K1413049-013	11/17/2014	11/19/2014
MW-40	K1413049-014	11/17/2014	11/19/2014
MW-41	K1413049-015	11/17/2014	11/19/2014
MW-42	K1413049-016	11/17/2014	11/19/2014
MW-43	K1413049-017	11/17/2014	11/19/2014
MW-45	K1413049-018	11/16/2014	11/19/2014
FIELD BLANK RINSATE	K1413049-019	11/17/2014	11/19/2014
MW-3	K1413049-020	11/16/2014	11/19/2014
HCMW-7	K1413049-021	11/17/2014	11/19/2014
MW-15	K1413049-022	11/17/2014	11/19/2014
MW-16	K1413049-023	11/17/2014	11/19/2014
MW-17	K1413049-024	11/17/2014	11/19/2014
MW-18	K1413049-025	11/17/2014	11/19/2014
MW-2	K1413049-026	11/16/2014	11/19/2014
MW-22	K1413049-027	11/16/2014	11/19/2014
MW-23	K1413049-028	11/16/2014	11/19/2014
MW-24	K1413049-029	11/16/2014	11/19/2014
MW-25	K1413049-030	11/16/2014	11/19/2014
MW-26	K1413049-031	11/16/2014	11/19/2014
MW-36MS	KWG1415702-1	11/17/2014	11/19/2014
MW-36DMS	KWG1415702-2	11/17/2014	11/19/2014

Analytical Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/16/2014
Date Received: 11/19/2014

Pentachlorophenol

Sample Name: MW-27 **Units:** ug/L
Lab Code: K1413049-001 **Basis:** NA
Extraction Method: Method Mod **Level:** Low
Analysis Method: 8151M

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	ND	U	0.50	0.16	1	11/20/14	11/27/14	KWG1415702	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	102	33-114	11/27/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington
 Sample Matrix: Water

Service Request: K1413049
 Date Collected: 11/17/2014
 Date Received: 11/19/2014

Pentachlorophenol

Sample Name: MW-28 Units: ug/L
 Lab Code: K1413049-002 Basis: NA
 Extraction Method: Method Mod Level: Low
 Analysis Method: 8151M

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	2.2	0.50	0.16	1	11/20/14	11/27/14	KWG1415702	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	96	33-114	11/27/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington
 Sample Matrix: Water

Service Request: K1413049
 Date Collected: 11/16/2014
 Date Received: 11/19/2014

Pentachlorophenol

Sample Name: MW-29 Units: ug/L
 Lab Code: K1413049-003 Basis: NA
 Extraction Method: Method Mod Level: Low
 Analysis Method: 8151M

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	44		0.50	0.16	1	11/20/14	11/27/14	KWG1415702	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	81	33-114	11/27/14	Acceptable

Comments:

Analytical Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/17/2014
Date Received: 11/19/2014

Pentachlorophenol

Sample Name: MW-30 **Units:** ug/L
Lab Code: K1413049-004 **Basis:** NA
Extraction Method: Method Mod **Level:** Low
Analysis Method: 8151M

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	ND	U	0.50	0.16	1	11/20/14	11/27/14	KWG1415702	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	99	33-114	11/27/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/16/2014
Date Received: 11/19/2014

Pentachlorophenol

Sample Name: MW-31 **Units:** ug/L
Lab Code: K1413049-005 **Basis:** NA
Extraction Method: Method Mod **Level:** Low
Analysis Method: 8151M

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	0.24 J	0.50	0.16	1	11/20/14	11/27/14	KWG1415702	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	104	33-114	11/27/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington
 Sample Matrix: Water

Service Request: K1413049
 Date Collected: 11/16/2014
 Date Received: 11/19/2014

Pentachlorophenol

Sample Name: MW-32 Units: ug/L
 Lab Code: K1413049-006 Basis: NA
 Extraction Method: Method Mod Level: Low
 Analysis Method: 8151M

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	420	D	5.0	1.6	10	11/20/14	11/28/14	KWG1415702	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	101	33-114	11/28/14	Acceptable

Comments:

Analytical Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/16/2014
Date Received: 11/19/2014

Pentachlorophenol

Sample Name: MW-33
Lab Code: K1413049-007
Extraction Method: Method Mod
Analysis Method: 8151M

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	25		0.50	0.16	1	11/20/14	12/02/14	KWG1415702	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	84	33-114	12/02/14	Acceptable

Comments:

Analytical Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/16/2014
Date Received: 11/19/2014

Pentachlorophenol

Sample Name: MW-34 **Units:** ug/L
Lab Code: K1413049-008 **Basis:** NA
Extraction Method: Method Mod **Level:** Low
Analysis Method: 8151M

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	250	D	5.0	1.6	10	11/20/14	11/28/14	KWG1415702	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	89	33-114	11/28/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington
 Sample Matrix: Water

Service Request: K1413049
 Date Collected: 11/16/2014
 Date Received: 11/19/2014

Pentachlorophenol

Sample Name: MW-35 Units: ug/L
 Lab Code: K1413049-009 Basis: NA
 Extraction Method: Method Mod Level: Low
 Analysis Method: 8151M

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	ND	U	0.50	0.16	1	11/20/14	11/27/14	KWG1415702	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	100	33-114	11/27/14	Acceptable

Comments:

Analytical Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/17/2014
Date Received: 11/19/2014

Pentachlorophenol

Sample Name: MW-36 **Units:** ug/L
Lab Code: K1413049-010 **Basis:** NA
Extraction Method: Method Mod **Level:** Low
Analysis Method: 8151M

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	120	0.50	0.16	1	11/20/14	11/27/14	KWG1415702	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	85	33-114	11/27/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/17/2014
Date Received: 11/19/2014

Pentachlorophenol

Sample Name: MW-37 **Units:** ug/L
Lab Code: K1413049-011 **Basis:** NA
Extraction Method: Method Mod **Level:** Low
Analysis Method: 8151M

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	79		0.50	0.16	1	11/20/14	11/27/14	KWG1415702	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	92	33-114	11/27/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington
 Sample Matrix: Water

Service Request: K1413049
 Date Collected: 11/16/2014
 Date Received: 11/19/2014

Pentachlorophenol

Sample Name: MW-45 Units: ug/L
 Lab Code: K1413049-018 Basis: NA
 Extraction Method: Method Mod Level: Low
 Analysis Method: 8151M

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	65		0.50	0.16	1	11/20/14	11/27/14	KWG1415702	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	95	33-114	11/27/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/17/2014
Date Received: 11/19/2014

Pentachlorophenol

Sample Name: FIELD BLANK RINSATE **Units:** ug/L
Lab Code: K1413049-019 **Basis:** NA
Extraction Method: Method Mod **Level:** Low
Analysis Method: 8151M

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	ND	U	0.50	0.16	1	11/20/14	11/28/14	KWG1415702	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	90	33-114	11/28/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/16/2014
Date Received: 11/19/2014

Pentachlorophenol

Sample Name: MW-3
Lab Code: K1413049-020
Extraction Method: Method Mod
Analysis Method: 8151M

Units: ug/L
Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	720	D	5.0	1.6	10	11/20/14	11/28/14	KWG1415702	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	78	33-114	11/28/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington
 Sample Matrix: Water

Service Request: K1413049
 Date Collected: 11/17/2014
 Date Received: 11/19/2014

Pentachlorophenol

Sample Name: HCMW-7 Units: ug/L
 Lab Code: K1413049-021 Basis: NA
 Extraction Method: Method Mod Level: Low
 Analysis Method: 8151M

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	ND U	0.50	0.16	1	11/20/14	11/28/14	KWG1415698	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	109	33-114	11/28/14	Acceptable

Comments:

Analytical Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington
 Sample Matrix: Water

Service Request: K1413049
 Date Collected: 11/17/2014
 Date Received: 11/19/2014

Pentachlorophenol

Sample Name: MW-15 Units: ug/L
 Lab Code: K1413049-022 Basis: NA
 Extraction Method: Method Mod Level: Low
 Analysis Method: 8151M

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	ND	U	0.50	0.16	1	11/20/14	11/28/14	KWG1415698	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	101	33-114	11/28/14	Acceptable

Comments:

Analytical Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/17/2014
Date Received: 11/19/2014

Pentachlorophenol

Sample Name: MW-16 **Units:** ug/L
Lab Code: K1413049-023 **Basis:** NA
Extraction Method: Method Mod **Level:** Low
Analysis Method: 8151M

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	ND	U	0.50	0.16	1	11/20/14	11/28/14	KWG1415698	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	90	33-114	11/28/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington
 Sample Matrix: Water

Service Request: K1413049
 Date Collected: 11/17/2014
 Date Received: 11/19/2014

Pentachlorophenol

Sample Name: MW-17 Units: ug/L
 Lab Code: K1413049-024 Basis: NA
 Extraction Method: Method Mod Level: Low
 Analysis Method: 8151M

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	ND	U	0.50	0.16	1	11/20/14	11/28/14	KWG1415698	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	105	33-114	11/28/14	Acceptable

Comments:

Analytical Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/17/2014
Date Received: 11/19/2014

Pentachlorophenol

Sample Name: MW-18 **Units:** ug/L
Lab Code: K1413049-025 **Basis:** NA
Extraction Method: Method Mod **Level:** Low
Analysis Method: 8151M

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	ND	U	0.50	0.16	1	11/20/14	11/28/14	KWG1415698	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	106	33-114	11/28/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/16/2014
Date Received: 11/19/2014

Pentachlorophenol

Sample Name: MW-2 **Units:** ug/L
Lab Code: K1413049-026 **Basis:** NA
Extraction Method: Method Mod **Level:** Low
Analysis Method: 8151M

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	ND U	0.50	0.16	1	11/20/14	11/28/14	KWG1415698	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	103	33-114	11/28/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/16/2014
Date Received: 11/19/2014

Pentachlorophenol

Sample Name: MW-22 **Units:** ug/L
Lab Code: K1413049-027 **Basis:** NA
Extraction Method: Method Mod **Level:** Low
Analysis Method: 8151M

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	120		0.50	0.16	1	11/20/14	11/28/14	KWG1415698	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	97	33-114	11/28/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/16/2014
Date Received: 11/19/2014

Pentachlorophenol

Sample Name: MW-23 **Units:** ug/L
Lab Code: K1413049-028 **Basis:** NA
Extraction Method: Method Mod **Level:** Low
Analysis Method: 8151M

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	200	D	2.5	0.80	5	11/20/14	12/02/14	KWG1415698	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	94	33-114	12/02/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/16/2014
Date Received: 11/19/2014

Pentachlorophenol

Sample Name: MW-24 **Units:** ug/L
Lab Code: K1413049-029 **Basis:** NA
Extraction Method: Method Mod **Level:** Low
Analysis Method: 8151M

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	68		0.50	0.16	1	11/20/14	11/28/14	KWG1415698	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	104	33-114	11/28/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington
 Sample Matrix: Water

Service Request: K1413049
 Date Collected: 11/16/2014
 Date Received: 11/19/2014

Pentachlorophenol

Sample Name: MW-25 Units: ug/L
 Lab Code: K1413049-030 Basis: NA
 Extraction Method: Method Mod Level: Low
 Analysis Method: 8151M

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	110	0.50	0.16	1	11/20/14	11/28/14	KWG1415698	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	99	33-114	11/28/14	Acceptable

Comments:

Analytical Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/16/2014
Date Received: 11/19/2014

Pentachlorophenol

Sample Name: MW-26 **Units:** ug/L
Lab Code: K1413049-031 **Basis:** NA
Extraction Method: Method Mod **Level:** Low
Analysis Method: 8151M

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	ND	U	0.50	0.16	1	11/20/14	11/28/14	KWG1415698	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	97	33-114	11/28/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: NA
Date Received: NA

Pentachlorophenol

Sample Name: Method Blank **Units:** ug/L
Lab Code: KWG1415698-4 **Basis:** NA
Extraction Method: Method Mod **Level:** Low
Analysis Method: 8151M

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	ND	U	0.50	0.16	1	11/20/14	11/28/14	KWG1415698	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	89	33-114	11/28/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: NA
Date Received: NA

Pentachlorophenol

Sample Name: Method Blank **Units:** ug/L
Lab Code: KWG1415702-4 **Basis:** NA
Extraction Method: Method Mod **Level:** Low
Analysis Method: 8151M

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Pentachlorophenol	ND	U	0.50	0.16	1	11/20/14	11/28/14	KWG1415702	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	78	33-114	11/28/14	Acceptable

Comments: _____

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington
 Sample Matrix: Water

Surrogate Recovery Summary
Pentachlorophenol

Extraction Method: Method Units: Percent
 Analysis Method: 8151M Level: Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>
Batch QC	K1413047-003	103
MW-27	K1413049-001	102
MW-28	K1413049-002	96
MW-29	K1413049-003	81
MW-30	K1413049-004	99
MW-31	K1413049-005	104
MW-32	K1413049-006	101 D
MW-33	K1413049-007	84
MW-34	K1413049-008	89 D
MW-35	K1413049-009	100
MW-36	K1413049-010	85
MW-37	K1413049-011	92
MW-38	K1413049-012	104
MW-39	K1413049-013	97
MW-40	K1413049-014	88 D
MW-41	K1413049-015	98 D
MW-42	K1413049-016	93
MW-43	K1413049-017	99
MW-45	K1413049-018	95
FIELD BLANK RINSATE	K1413049-019	90
MW-3	K1413049-020	78 D
HCMW-7	K1413049-021	109
MW-15	K1413049-022	101
MW-16	K1413049-023	90
MW-17	K1413049-024	105
MW-18	K1413049-025	106
MW-2	K1413049-026	103
MW-22	K1413049-027	97
MW-23	K1413049-028	94 D
MW-24	K1413049-029	104
MW-25	K1413049-030	99
MW-26	K1413049-031	97
Method Blank	KWG1415698-4	89
Method Blank	KWG1415702-4	78

Surrogate Recovery Control Limits (%)

Sur1 = 4-Bromo-2,6-dichlorophenol 33-114

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Surrogate Recovery Summary
Pentachlorophenol

Extraction Method: Method Mod
Analysis Method: 8151M

Units: Percent
Level: Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>
Batch QCMS	KWG1415698-1	101
Batch QCDMS	KWG1415698-2	83
MW-36MS	KWG1415702-1	97
MW-36DMS	KWG1415702-2	92
Lab Control Sample	KWG1415698-3	98
Lab Control Sample	KWG1415702-3	74

Surrogate Recovery Control Limits (%)

Sur1 = 4-Bromo-2,6-dichlorophenol 33-114

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

QA/QC Report

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington
 Sample Matrix: Water

Service Request: K1413049
 Date Extracted: 11/20/2014
 Date Analyzed: 11/28/2014

Matrix Spike/Duplicate Matrix Spike Summary
Pentachlorophenol

Sample Name:	Batch QC	Units:	ug/L
Lab Code:	K1413047-003	Basis:	NA
Extraction Method:	Method Mod	Level:	Low
Analysis Method:	8151M	Extraction Lot:	KWG1415698

Batch QCMS			Batch QCDMS		
KWG1415698-1			KWG1415698-2		
Matrix Spike			Duplicate Matrix Spike		

Analyte Name	Sample Result	Result	Spike Amount	%Rec	Result	Spike Amount	%Rec	%Rec Limits	RPD	RPD Limit
Pentachlorophenol	590	388E	10.0	-2031 #	364E	10.0	-2267 #	40-106	6	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Extracted: 11/20/2014
Date Analyzed: 11/27/2014

Matrix Spike/Duplicate Matrix Spike Summary
Pentachlorophenol

Sample Name:	MW-36	Units:	ug/L
Lab Code:	K1413049-010	Basis:	NA
Extraction Method:	Method Mod	Level:	Low
Analysis Method:	8151M	Extraction Lot:	KWG1415702

MW-36MS				MW-36DMS			
KWG1415702-1				KWG1415702-2			
Matrix Spike				Duplicate Matrix Spike			

Analyte Name	Sample	MW-36MS			MW-36DMS			%Rec Limits	RPD	RPD Limit
	Result	Result	Spike Amount	%Rec	Result	Spike Amount	%Rec			
Pentachlorophenol	120	155	10.0	308 #	156	10.0	320 #	40-106	1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington
 Sample Matrix: Water

Service Request: K1413049
 Date Extracted: 11/20/2014
 Date Analyzed: 11/28/2014

Lab Control Spike Summary
Pentachlorophenol

Extraction Method: Method Mod Units: ug/L
 Analysis Method: 8151M Basis: NA
 Level: Low
 Extraction Lot: KWG1415698

Lab Control Sample

KWG1415698-3

Lab Control Spike

Analyte Name	Result	Spike	%Rec	%Rec Limits
		Amount	%Rec	
Pentachlorophenol	7.20	10.0	72	44-106

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington
 Sample Matrix: Water

Service Request: K1413049
 Date Extracted: 11/20/2014
 Date Analyzed: 11/28/2014

Lab Control Spike Summary
Pentachlorophenol

Extraction Method: Method Mod Units: ug/L
 Analysis Method: 8151M Basis: NA
 Level: Low
 Extraction Lot: KWG1415702

Lab Control Sample

KWG1415702-3

Lab Control Spike

Analyte Name	Result	Spike Amount	%Rec	%Rec Limits
Pentachlorophenol	6.44	10.0	64	44-106

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Extracted: 11/20/2014
Date Analyzed: 11/28/2014
Time Analyzed: 21:27

Method Blank Summary
Pentachlorophenol

Sample Name:	Method Blank	Instrument ID:	GC36
Lab Code:	KWG1415698-4	File ID:	J:\GC36\DATA\112814P\1128000051.D
Extraction Method:	Method Mod	Level:	Low
Analysis Method:	8151M	Extraction Lot:	KWG1415698

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Batch QC	K1413047-003	J:\GC36\DATA\112814P\1128000030.D	11/28/14	16:48
Batch QCMS	KWG1415698-1	J:\GC36\DATA\112814P\1128000031.D	11/28/14	17:01
Batch QCDMS	KWG1415698-2	J:\GC36\DATA\112814P\1128000032.D	11/28/14	17:15
HCMW-7	K1413049-021	J:\GC36\DATA\112814P\1128000033.D	11/28/14	17:28
MW-15	K1413049-022	J:\GC36\DATA\112814P\1128000034.D	11/28/14	17:41
MW-16	K1413049-023	J:\GC36\DATA\112814P\1128000037.D	11/28/14	18:21
MW-17	K1413049-024	J:\GC36\DATA\112814P\1128000038.D	11/28/14	18:34
MW-18	K1413049-025	J:\GC36\DATA\112814P\1128000039.D	11/28/14	18:48
MW-2	K1413049-026	J:\GC36\DATA\112814P\1128000040.D	11/28/14	19:01
MW-22	K1413049-027	J:\GC36\DATA\112814P\1128000041.D	11/28/14	19:14
MW-24	K1413049-029	J:\GC36\DATA\112814P\1128000043.D	11/28/14	19:41
MW-25	K1413049-030	J:\GC36\DATA\112814P\1128000044.D	11/28/14	19:54
MW-26	K1413049-031	J:\GC36\DATA\112814P\1128000045.D	11/28/14	20:07
Lab Control Sample	KWG1415698-3	J:\GC36\DATA\112814P\1128000050.D	11/28/14	21:14
MW-23	K1413049-028	J:\GC36\DATA\120214P\1202000006.D	12/02/14	12:07
Batch QC	K1413047-003	J:\GC36\DATA\120214P\1202000007.D	12/02/14	12:20

QA/QC Report

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Extracted: 11/20/2014
Date Analyzed: 11/28/2014
Time Analyzed: 13:42

Method Blank Summary
Pentachlorophenol

Sample Name: Method Blank
Lab Code: KWG1415702-4

Extraction Method: Method Mod
Analysis Method: 8151M

Instrument ID: GC36
File ID: J:\GC36\DATA\112814P\1128000016.D
Level: Low
Extraction Lot: KWG1415702

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
MW-27	K1413049-001	J:\GC36\DATA\112714P\1127000019.D	11/27/14	15:34
MW-28	K1413049-002	J:\GC36\DATA\112714P\1127000020.D	11/27/14	15:54
MW-29	K1413049-003	J:\GC36\DATA\112714P\1127000021.D	11/27/14	16:14
MW-30	K1413049-004	J:\GC36\DATA\112714P\1127000022.D	11/27/14	16:35
MW-31	K1413049-005	J:\GC36\DATA\112714P\1127000023.D	11/27/14	16:57
MW-35	K1413049-009	J:\GC36\DATA\112714P\1127000027.D	11/27/14	18:28
MW-36	K1413049-010	J:\GC36\DATA\112714P\1127000028.D	11/27/14	18:51
MW-36MS	KWG1415702-1	J:\GC36\DATA\112714P\1127000031.D	11/27/14	20:03
MW-36DMS	KWG1415702-2	J:\GC36\DATA\112714P\1127000032.D	11/27/14	20:27
MW-37	K1413049-011	J:\GC36\DATA\112714P\1127000033.D	11/27/14	20:52
MW-38	K1413049-012	J:\GC36\DATA\112714P\1127000034.D	11/27/14	21:16
MW-39	K1413049-013	J:\GC36\DATA\112714P\1127000035.D	11/27/14	21:40
MW-42	K1413049-016	J:\GC36\DATA\112714P\1127000038.D	11/27/14	22:52
MW-43	K1413049-017	J:\GC36\DATA\112714P\1127000039.D	11/27/14	23:16
MW-45	K1413049-018	J:\GC36\DATA\112714P\1127000040.D	11/27/14	23:40
MW-32	K1413049-006	J:\GC36\DATA\112814P\112800007.D	11/28/14	11:42
MW-34	K1413049-008	J:\GC36\DATA\112814P\112800008.D	11/28/14	11:56
MW-40	K1413049-014	J:\GC36\DATA\112814P\112800009.D	11/28/14	12:09
MW-41	K1413049-015	J:\GC36\DATA\112814P\112800010.D	11/28/14	12:22
FIELD BLANK RINSATE	K1413049-019	J:\GC36\DATA\112814P\112800013.D	11/28/14	13:02
MW-3	K1413049-020	J:\GC36\DATA\112814P\112800014.D	11/28/14	13:15
Lab Control Sample	KWG1415702-3	J:\GC36\DATA\112814P\112800015.D	11/28/14	13:29
MW-33	K1413049-007	J:\GC36\DATA\120214P\120200005.D	12/02/14	11:54

QA/QC Report

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Extracted: 11/20/2014
Date Analyzed: 11/28/2014
Time Analyzed: 21:14

Lab Control Sample Summary
Pentachlorophenol

Sample Name:	Lab Control Sample	Instrument ID:	GC36
Lab Code:	KWG1415698-3	File ID:	J:\GC36\DATA\112814P\1128000050.D
Extraction Method:	Method Mod	Level:	Low
Analysis Method:	8151M	Extraction Lot:	KWG1415698

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Batch QC	K1413047-003	J:\GC36\DATA\112814P\1128000030.D	11/28/14	16:48
Batch QCMS	KWG1415698-1	J:\GC36\DATA\112814P\1128000031.D	11/28/14	17:01
Batch QCDMS	KWG1415698-2	J:\GC36\DATA\112814P\1128000032.D	11/28/14	17:15
HCMW-7	K1413049-021	J:\GC36\DATA\112814P\1128000033.D	11/28/14	17:28
MW-15	K1413049-022	J:\GC36\DATA\112814P\1128000034.D	11/28/14	17:41
MW-16	K1413049-023	J:\GC36\DATA\112814P\1128000037.D	11/28/14	18:21
MW-17	K1413049-024	J:\GC36\DATA\112814P\1128000038.D	11/28/14	18:34
MW-18	K1413049-025	J:\GC36\DATA\112814P\1128000039.D	11/28/14	18:48
MW-2	K1413049-026	J:\GC36\DATA\112814P\1128000040.D	11/28/14	19:01
MW-22	K1413049-027	J:\GC36\DATA\112814P\1128000041.D	11/28/14	19:14
MW-24	K1413049-029	J:\GC36\DATA\112814P\1128000043.D	11/28/14	19:41
MW-25	K1413049-030	J:\GC36\DATA\112814P\1128000044.D	11/28/14	19:54
MW-26	K1413049-031	J:\GC36\DATA\112814P\1128000045.D	11/28/14	20:07
Method Blank	KWG1415698-4	J:\GC36\DATA\112814P\1128000051.D	11/28/14	21:27
MW-23	K1413049-028	J:\GC36\DATA\120214P\1202000006.D	12/02/14	12:07
Batch QC	K1413047-003	J:\GC36\DATA\120214P\1202000007.D	12/02/14	12:20

QA/QC Report

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Extracted: 11/20/2014
Date Analyzed: 11/28/2014
Time Analyzed: 13:29

Lab Control Sample Summary
Pentachlorophenol

Sample Name: Lab Control Sample
Lab Code: KWG1415702-3

Instrument ID: GC36
File ID: J:\GC36\DATA\112814P\1128000015.D
Level: Low
Extraction Lot: KWG1415702

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
MW-27	K1413049-001	J:\GC36\DATA\112714P\1127000019.D	11/27/14	15:34
MW-28	K1413049-002	J:\GC36\DATA\112714P\1127000020.D	11/27/14	15:54
MW-29	K1413049-003	J:\GC36\DATA\112714P\1127000021.D	11/27/14	16:14
MW-30	K1413049-004	J:\GC36\DATA\112714P\1127000022.D	11/27/14	16:35
MW-31	K1413049-005	J:\GC36\DATA\112714P\1127000023.D	11/27/14	16:57
MW-35	K1413049-009	J:\GC36\DATA\112714P\1127000027.D	11/27/14	18:28
MW-36	K1413049-010	J:\GC36\DATA\112714P\1127000028.D	11/27/14	18:51
MW-36MS	KWG1415702-1	J:\GC36\DATA\112714P\1127000031.D	11/27/14	20:03
MW-36DMS	KWG1415702-2	J:\GC36\DATA\112714P\1127000032.D	11/27/14	20:27
MW-37	K1413049-011	J:\GC36\DATA\112714P\1127000033.D	11/27/14	20:52
MW-38	K1413049-012	J:\GC36\DATA\112714P\1127000034.D	11/27/14	21:16
MW-39	K1413049-013	J:\GC36\DATA\112714P\1127000035.D	11/27/14	21:40
MW-42	K1413049-016	J:\GC36\DATA\112714P\1127000038.D	11/27/14	22:52
MW-43	K1413049-017	J:\GC36\DATA\112714P\1127000039.D	11/27/14	23:16
MW-45	K1413049-018	J:\GC36\DATA\112714P\1127000040.D	11/27/14	23:40
MW-32	K1413049-006	J:\GC36\DATA\112814P\1128000007.D	11/28/14	11:42
MW-34	K1413049-008	J:\GC36\DATA\112814P\1128000008.D	11/28/14	11:56
MW-40	K1413049-014	J:\GC36\DATA\112814P\1128000009.D	11/28/14	12:09
MW-41	K1413049-015	J:\GC36\DATA\112814P\1128000010.D	11/28/14	12:22
FIELD BLANK RINSATE	K1413049-019	J:\GC36\DATA\112814P\1128000013.D	11/28/14	13:02
MW-3	K1413049-020	J:\GC36\DATA\112814P\1128000014.D	11/28/14	13:15
Method Blank	KWG1415702-4	J:\GC36\DATA\112814P\1128000016.D	11/28/14	13:42
MW-33	K1413049-007	J:\GC36\DATA\120214P\1202000005.D	12/02/14	11:54

QA/QC Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington

Service Request: K1413049
 Calibration Date: 11/27/2014

Initial Calibration Summary
Pentachlorophenol

Calibration ID: CAL13703
 Instrument ID: GC36

Column: RTX-CLP

Level ID	File ID
A	J:\GC36\DATA\112714P\11270000502.D
B	J:\GC36\DATA\112714P\11270000503.D
C	J:\GC36\DATA\112714P\11270000504.D
D	J:\GC36\DATA\112714P\11270000505.D
E	J:\GC36\DATA\112714P\11270000506.D
F	J:\GC36\DATA\112714P\11270000507.D

Level ID	File ID
G	J:\GC36\DATA\112714P\11270000508.D
H	J:\GC36\DATA\112714P\11270000509.D
I	J:\GC36\DATA\112714P\11270000510.D
J	J:\GC36\DATA\112714P\11270000511.D

Analyte Name	Level			Level			Level			Level			Level		
	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF
Pentachlorophenol	A	0.95	7.19E+5	B	2.4	5.90E+5	C	4.8	5.02E+5	D	9.5	4.79E+5	E	24	4.01E+5
	F	48	3.80E+5	G	95	3.94E+5	H	240	3.60E+5	I	480	3.64E+5	J	950	3.67E+5
4-Bromo-2,6-dichlorophenol				B	2.5	2.64E+5	C	5.0	2.64E+5	D	10	2.52E+5	E	25	2.43E+5
	F	50	2.37E+5	G	100	2.83E+5	H	250	2.79E+5	I	500	2.82E+5			

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington

Service Request: K1413049
Calibration Date: 11/27/2014

Initial Calibration Summary
Pentachlorophenol

Calibration ID: CAL13703
Instrument ID: GC36

Column: RTX-CLP

Analyte Name	Compound Type	Calibration Evaluation				
		Fit Type	Eval.	Result	Q	Control Criteria
Pentachlorophenol	MS	Quadratic	COD	1.000		≥ 0.99
4-Bromo-2,6-dichlorophenol	SURR	Quadratic	COD	0.998		≥ 0.99

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington

Service Request: K1413049
Calibration Date: 11/27/2014
Date Analyzed: 11/27/2014

Second Source Calibration Verification
Pentachlorophenol

Calibration Type: External Standard
Analysis Method: 8151M

Calibration ID: CAL13703
Units: ug/L

File ID: J:\GC36\DATA\112714P\11270000512.D

Column ID: RTX-CLP

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	480	480	456000	371000	NA	1	± 20 %	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

QA/QC Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington

Service Request: K1413049
 Calibration Date: 11/27/2014

Initial Calibration Summary
Pentachlorophenol

Calibration ID: CAL13703
 Instrument ID: GC36

Column: RTX-CLP2

Level ID	File ID	Level ID	File ID
A	J:\GC36\DATA\112714P\11270000502.D\11270000502c.d	G	J:\GC36\DATA\112714P\11270000508.D\11270000508c.d
B	J:\GC36\DATA\112714P\11270000503.D\11270000503c.d	H	J:\GC36\DATA\112714P\11270000509.D\11270000509c.d
C	J:\GC36\DATA\112714P\11270000504.D\11270000504c.d	I	J:\GC36\DATA\112714P\11270000510.D\11270000510c.d
D	J:\GC36\DATA\112714P\11270000505.D\11270000505c.d	J	J:\GC36\DATA\112714P\11270000511.D\11270000511c.d
E	J:\GC36\DATA\112714P\11270000506.D\11270000506c.d		
F	J:\GC36\DATA\112714P\11270000507.D\11270000507c.d		

Analyte Name	Level			Level			Level			Level			Level		
	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF
Pentachlorophenol	A	0.95	1.90E+6	B	2.4	1.38E+6	C	4.8	1.31E+6	D	9.5	1.07E+6	E	24	8.87E+5
	F	48	8.25E+5	G	95	8.83E+5	H	240	8.38E+5	I	480	8.63E+5	J	950	8.93E+5
4-Bromo-2,6-dichlorophenol				B	2.5	4.09E+5	C	5.0	4.30E+5	D	10	4.50E+5	E	25	5.00E+5
	F	50	5.23E+5	G	100	6.50E+5	H	250	6.59E+5	I	500	6.75E+5			

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington

Service Request: K1413049
 Calibration Date: 11/27/2014

Initial Calibration Summary
Pentachlorophenol

Calibration ID: CAL13703
 Instrument ID: GC36

Column: RTX-CLP2

Analyte Name	Compound Type	Calibration Evaluation				
		Fit Type	Eval.	Eval. Result	Q	Control Criteria
Pentachlorophenol	MS	Quadratic	COD	1.000		≥ 0.99
4-Bromo-2,6-dichlorophenol	SURR	Quadratic	COD	0.995		≥ 0.99

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington

Service Request: K1413049
Calibration Date: 11/27/2014
Date Analyzed: 11/27/2014

Second Source Calibration Verification
Pentachlorophenol

Calibration Type: External Standard **Calibration ID:** CAL13703
Analysis Method: 8151M **Units:** ug/L
File ID: J:\GC36\DATA\112714P\11270000512.D\11270000512c.d **Column ID:** RTX-CLP2

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	480	490	1080000	884000	NA	2	± 20 %	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

* SPCC Compound

‡ CCC Compound

QA/QC Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington

Service Request: K1413049
Date Analyzed: 11/27/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type: External Standard
Analysis Method: 8151M

Calibration Date: 11/27/2014
Calibration ID: CAL13703
Analysis Lot: KWG1415775
Units: ug/L

File ID: J:\GC36\DATA\112714P\11270000017.

Column ID: RTX-CLP

Analyte Name	Expected	Result	Average	CCV	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	48	49	456000	390000	NA	3	± 20	Quadratic
4-Bromo-2,6-dichlorophenol	50	50	263000	257000	NA	1	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington

Service Request: K1413049
Date Analyzed: 11/27/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type:	External Standard	Calibration Date:	11/27/2014
Analysis Method:	8151M	Calibration ID:	CAL13703
		Analysis Lot:	KWG1415775
		Units:	ug/L

File ID: J:\GC36\DATA\112714P\11270000017.D\11270000017C **Column ID:** RTX-CLP2

Analyte Name	Expected	Result	Average	CCV	%D	%Drift	Criteria	Curve Fit
			RF	RF				
Pentachlorophenol	48	46	1080000	837000	NA	-3	± 20	Quadratic
4-Bromo-2,6-dichlorophenol	50	53	537000	574000	NA	6	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company Service Request: K1413049
 Project: J.H. Baxter-Arlington Date Analyzed: 11/27/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type: External Standard Calibration Date: 11/27/2014
 Analysis Method: 8151M Calibration ID: CAL13703
 Analysis Lot: KWG1415775
 Units: ug/L

File ID: J:\GC36\DATA\112714P\1127000029. Column ID: RTX-CLP

Analyte Name	Expected	Result	Average	CCV	RF	RF	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	480	480	456000	374000	NA	2	± 20	2	± 20	Quadratic
4-Bromo-2,6-dichlorophenol	500	510	263000	296000	NA	2	± 20	2	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington

Service Request: K1413049
Date Analyzed: 11/27/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type: External Standard
Analysis Method: 8151M

Calibration Date: 11/27/2014
Calibration ID: CAL13703
Analysis Lot: KWG1415775
Units: ug/L

File ID: J:\GC36\DATA\112714P\11270000029.D\11270000029C Column ID: RTX-CLP2

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	480	490	1080000	898000	NA	4	± 20	Quadratic
4-Bromo-2,6-dichlorophenol	500	510	537000	717000	NA	1	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington

Service Request: K1413049
Date Analyzed: 11/28/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type: External Standard
Analysis Method: 8151M

Calibration Date: 11/27/2014
Calibration ID: CAL13703
Analysis Lot: KWG1415775
Units: ug/L

File ID: J:\GC36\DATA\112714P\1127000041.

Column ID: RTX-CLP

Analyte Name	Expected	Result	Average	CCV	RF	RF	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	480	490	456000	376000	NA	2	± 20	Quadratic		
4-Bromo-2,6-dichlorophenol	500	520	263000	303000	NA	4	± 20	Quadratic		

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington

Service Request: K1413049
 Date Analyzed: 11/28/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type:	External Standard	Calibration Date:	11/27/2014
Analysis Method:	8151M	Calibration ID:	CAL13703
		Analysis Lot:	KWG1415775
		Units:	ug/L

File ID: J:\GC36\DATA\112714P\11270000041.D\11270000041C Column ID: RTX-CLP2

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	480	500	1080000	908000	NA	5	± 20	Quadratic
4-Bromo-2,6-dichlorophenol	500	520	537000	735000	NA	3	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington

Service Request: K1413049
Date Analyzed: 11/28/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type: External Standard
Analysis Method: 8151M

Calibration Date: 11/27/2014
Calibration ID: CAL13703
Analysis Lot: KWG1415840
Units: ug/L

File ID: J:\GC36\DATA\I12814P\I12800003.D

Column ID: RTX-CLP

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	480	470	456000	363000	NA	-1	± 20	Quadratic
4-Bromo-2,6-dichlorophenol	500	530	263000	306000	NA	5	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington

Service Request: K1413049
Date Analyzed: 11/28/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type:	External Standard	Calibration Date:	11/27/2014
Analysis Method:	8151M	Calibration ID:	CAL13703
		Analysis Lot:	KWG1415840
		Units:	ug/L

File ID: J:\GC36\DATA\112814P\112800003.D\112800003C. **Column ID:** RTX-CLP2

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	480	490	1080000	887000	NA	3	± 20	Quadratic
4-Bromo-2,6-dichlorophenol	500	520	537000	744000	NA	4	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington

Service Request: K1413049
Date Analyzed: 11/28/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type: External Standard
Analysis Method: 8151M

Calibration Date: 11/27/2014
Calibration ID: CAL13703
Analysis Lot: KWG1415840
Units: ug/L

File ID: J:\GC36\DATA\112814P\1128000011.D

Column ID: RTX-CLP

Analyte Name	Expected	Result	Average	CCV	RF	RF	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	480	460	456000	357000	NA	NA	-3	± 20	Quadratic	
4-Bromo-2,6-dichlorophenol	500	510	263000	295000	NA	NA	2	± 20	Quadratic	

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington

Service Request: K1413049
Date Analyzed: 11/28/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type:	External Standard	Calibration Date:	11/27/2014
Analysis Method:	8151M	Calibration ID:	CAL13703
		Analysis Lot:	KWG1415840
		Units:	ug/L

File ID: J:\GC36\DATA\112814P\1128000011.D\1128000011C. **Column ID:** RTX-CLP2

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	480	480	1080000	865000	NA	0	± 20	Quadratic
4-Bromo-2,6-dichlorophenol	500	500	537000	715000	NA	1	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington

Service Request: K1413049
 Date Analyzed: 11/28/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type: External Standard
 Analysis Method: 8151M

Calibration Date: 11/27/2014
 Calibration ID: CAL13703
 Analysis Lot: KWG1415840
 Units: ug/L

File ID: J:\GC36\DATA\112814P\1128000023.D

Column ID: RTX-CLP

Analyte Name	Expected	Result	Average	CCV	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	480	470	456000	365000	NA	-1	± 20	Quadratic
4-Bromo-2,6-dichlorophenol	500	530	263000	309000	NA	6	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington

Service Request: K1413049
Date Analyzed: 11/28/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type: External Standard
Analysis Method: 8151M

Calibration Date: 11/27/2014
Calibration ID: CAL13703
Analysis Lot: KWG1415840
Units: ug/L

File ID: J:\GC36\DATA\112814P\1128000023.D\1128000023C.

Column ID: RTX-CLP2

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	480	490	1080000	895000	NA	3	± 20	Quadratic
4-Bromo-2,6-dichlorophenol	500	520	537000	743000	NA	4	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington

Service Request: K1413049
Date Analyzed: 11/28/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type: External Standard
Analysis Method: 8151M

Calibration Date: 11/27/2014
Calibration ID: CAL13703
Analysis Lot: KWG1415840
Units: ug/L

File ID: J:\GC36\DATA\112814P\112800035.D

Column ID: RTX-CLP

Analyte Name	Expected	Result	Average	CCV	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	480	470	456000	366000	NA	-1	± 20	Quadratic
4-Bromo-2,6-dichlorophenol	500	520	263000	304000	NA	4	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington

Service Request: K1413049
Date Analyzed: 11/28/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type: External Standard
Analysis Method: 8151M

Calibration Date: 11/27/2014
Calibration ID: CAL13703
Analysis Lot: KWG1415840
Units: ug/L

File ID: J:\GC36\DATA\112814P\1128000035.D\1128000035C. **Column ID:** RTX-CLP2

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	480	490	1080000	891000	NA	3	± 20	Quadratic
4-Bromo-2,6-dichlorophenol	500	520	537000	743000	NA	4	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington

Service Request: K1413049
Date Analyzed: 11/28/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type: External Standard
Analysis Method: 8151M

Calibration Date: 11/27/2014
Calibration ID: CAL13703
Analysis Lot: KWG1415840
Units: ug/L

File ID: J:\GC36\DATA\112814P\112800047.D

Column ID: RTX-CLP

Analyte Name	Expected	Result	Average	CCV	RF	RF	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	480	460	456000	356000	NA	-3	± 20	Quadratic		
4-Bromo-2,6-dichlorophenol	500	510	263000	298000	NA	3	± 20	Quadratic		

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington

Service Request: K1413049
Date Analyzed: 11/28/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type: External Standard
Analysis Method: 8151M

Calibration Date: 11/27/2014
Calibration ID: CAL13703
Analysis Lot: KWG1415840
Units: ug/L

File ID: J:\GC36\DATA\112814P\1128000047.D\1128000047C.

Column ID: RTX-CLP2

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	480	480	1080000	872000	NA	1	± 20	Quadratic
4-Bromo-2,6-dichlorophenol	500	510	537000	730000	NA	2	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington

Service Request: K1413049
 Date Analyzed: 11/28/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type: External Standard
 Analysis Method: 8151M

Calibration Date: 11/27/2014
 Calibration ID: CAL13703
 Analysis Lot: KWG1415840
 Units: ug/L

File ID: J:\GC36\DATA\112814P\1128000062.D

Column ID: RTX-CLP

Analyte Name	Expected	Result	Average	CCV	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	480	440	456000	342000	NA	-7	± 20	Quadratic
4-Bromo-2,6-dichlorophenol	500	500	263000	288000	NA	0	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington

Service Request: K1413049
Date Analyzed: 11/28/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type: External Standard **Calibration Date:** 11/27/2014
Analysis Method: 8151M **Calibration ID:** CAL13703
Analysis Lot: KWG1415840
Units: ug/L

File ID: J:\GC36\DATA\112814P\1128000062.D\1128000062.C. **Column ID:** RTX-CLP2

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	480	470	1080000	847000	NA	-2	± 20	Quadratic
4-Bromo-2,6-dichlorophenol	500	500	537000	708000	NA	0	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington

Service Request: K1413049
 Date Analyzed: 12/02/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type: External Standard
 Analysis Method: 8151M

Calibration Date: 11/27/2014
 Calibration ID: CAL13703
 Analysis Lot: KWG1415867
 Units: ug/L

File ID: J:\GC36\DATA\120214P\120200003.D

Column ID: RTX-CLP

Analyte Name	Expected	Result	Average	CCV	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	48	44	456000	356000	NA	-6	± 20	Quadratic
4-Bromo-2,6-dichlorophenol	50	55	263000	282000	NA	10	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington

Service Request: K1413049
Date Analyzed: 12/02/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type: External Standard
Analysis Method: 8151M

Calibration Date: 11/27/2014
Calibration ID: CAL13703
Analysis Lot: KWG1415867
Units: ug/L

File ID: J:\GC36\DATA\120214P\120200003.D\120200003C.

Column ID: RTX-CLP2

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	48	44	1080000	801000	NA	-7	± 20	Quadratic
4-Bromo-2,6-dichlorophenol	50	60	537000	659000	NA	20	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington

Service Request: K1413049
Date Analyzed: 12/02/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type:	External Standard	Calibration Date:	11/27/2014
Analysis Method:	8151M	Calibration ID:	CAL13703
		Analysis Lot:	KWG1415867
		Units:	ug/L

File ID: J:\GC36\DATA\120214P\1202000010.D **Column ID:** RTX-CLP

Analyte Name	Expected	Result	Average	CCV	%D	%Drift	Criteria	Curve Fit
			RF	RF				
Pentachlorophenol	48	40	456000	321000	NA	-16	± 20	Quadratic
4-Bromo-2,6-dichlorophenol	50	45	263000	227000	NA	-11	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington

Service Request: K1413049
Date Analyzed: 12/02/2014

Continuing Calibration Verification Summary
Pentachlorophenol

Calibration Type: External Standard **Calibration Date:** 11/27/2014
Analysis Method: 8151M **Calibration ID:** CAL13703
Analysis Lot: KWG1415867
Units: ug/L

File ID: J:\GC36\DATA\120214P\1202000010.D\1202000010.C. **Column ID:** RTX-CLP2

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Pentachlorophenol	48	39	1080000	710000	NA	-18	± 20	Quadratic
4-Bromo-2,6-dichlorophenol	50	47	537000	505000	NA	-7	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington

Service Request: K1413049

Analysis Run Log
Pentachlorophenol

Analysis Method: 8151M

Analysis Lot: KWG1415775

Instrument ID: GC36

Column: RTX-CLP

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
70000001.D	Continuing Calibration Verification	KWG1415775-1	11/27/2014	10:29		11/27/2014	10:39
70000002.D	Instrument Blank	KWG1415775-5	11/27/2014	10:45		11/27/2014	10:55
70000003.D	ZZZZZZ	ZZZZZZ	11/27/2014	11:00		11/27/2014	11:10
70000004.D	ZZZZZZ	ZZZZZZ	11/27/2014	11:16		11/27/2014	11:26
70000005.D	ZZZZZZ	ZZZZZZ	11/27/2014	11:32		11/27/2014	11:41
70000006.D	ZZZZZZ	ZZZZZZ	11/27/2014	11:47		11/27/2014	11:57
70000007.D	ZZZZZZ	ZZZZZZ	11/27/2014	12:03		11/27/2014	12:13
70000008.D	ZZZZZZ	ZZZZZZ	11/27/2014	12:20		11/27/2014	12:30
70000010.D	ZZZZZZ	ZZZZZZ	11/27/2014	12:53		11/27/2014	13:03
70000011.D	ZZZZZZ	ZZZZZZ	11/27/2014	13:10		11/27/2014	13:19
70000012.D	ZZZZZZ	ZZZZZZ	11/27/2014	13:27		11/27/2014	13:37
70000013.D	ZZZZZZ	ZZZZZZ	11/27/2014	13:44		11/27/2014	13:54
70000015.D	ZZZZZZ	ZZZZZZ	11/27/2014	14:19		11/27/2014	14:29
70000016.D	ZZZZZZ	ZZZZZZ	11/27/2014	14:37		11/27/2014	14:47
70000017.D	Continuing Calibration Verification	KWG1415775-2	11/27/2014	14:56		11/27/2014	15:06
70000018.D	Instrument Blank	KWG1415775-6	11/27/2014	15:15		11/27/2014	15:24
70000019.D	MW-27	K1413049-001	11/27/2014	15:34		11/27/2014	15:44
70000020.D	MW-28	K1413049-002	11/27/2014	15:54		11/27/2014	16:04
70000021.D	MW-29	K1413049-003	11/27/2014	16:14		11/27/2014	16:24
70000022.D	MW-30	K1413049-004	11/27/2014	16:35		11/27/2014	16:45
70000023.D	MW-31	K1413049-005	11/27/2014	16:57		11/27/2014	17:06
70000027.D	MW-35	K1413049-009	11/27/2014	18:28		11/27/2014	18:37
70000028.D	MW-36	K1413049-010	11/27/2014	18:51		11/27/2014	19:01
70000029.D	Continuing Calibration Verification	KWG1415775-3	11/27/2014	19:15		11/27/2014	19:25
70000030.D	Instrument Blank	KWG1415775-7	11/27/2014	19:39		11/27/2014	19:49
70000031.D	MW-36MS	KWG1415702-1	11/27/2014	20:03		11/27/2014	20:13
70000032.D	MW-36DMS	KWG1415702-2	11/27/2014	20:27		11/27/2014	20:37
70000033.D	MW-37	K1413049-011	11/27/2014	20:52		11/27/2014	21:01
70000034.D	MW-38	K1413049-012	11/27/2014	21:16		11/27/2014	21:26
70000035.D	MW-39	K1413049-013	11/27/2014	21:40		11/27/2014	21:50
70000038.D	MW-42	K1413049-016	11/27/2014	22:52		11/27/2014	23:02
70000039.D	MW-43	K1413049-017	11/27/2014	23:16		11/27/2014	23:26
70000040.D	MW-45	K1413049-018	11/27/2014	23:40		11/27/2014	23:50
70000041.D	Continuing Calibration Verification	KWG1415775-4	11/28/2014	00:04		11/28/2014	00:14

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

QA/QC Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington

Service Request: K1413049

Analysis Run Log
Pentachlorophenol

Analysis Method: 8151M

Analysis Lot: KWG1415775
Instrument ID: GC36
Column: RTX-CLP

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
70000042.D	Instrument Blank	KWG1415775-8	11/28/2014	00:29		11/28/2014	00:38

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

QA/QC Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington

Service Request: K1413049

Analysis Run Log
Pentachlorophenol

Analysis Method: 8151M

Analysis Lot: KWG1415840
 Instrument ID: GC36
 Column: RTX-CLP

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
28000003.D	Continuing Calibration Verification	KWG1415840-1	11/28/2014	10:49		11/28/2014	10:59
28000004.D	Instrument Blank	KWG1415840-8	11/28/2014	11:02		11/28/2014	11:12
28000005.D	ZZZZZZ	ZZZZZZ	11/28/2014	11:16		11/28/2014	11:25
28000006.D	ZZZZZZ	ZZZZZZ	11/28/2014	11:29		11/28/2014	11:39
28000007.D	MW-32	K1413049-006	11/28/2014	11:42		11/28/2014	11:52
28000008.D	MW-34	K1413049-008	11/28/2014	11:56		11/28/2014	12:05
28000009.D	MW-40	K1413049-014	11/28/2014	12:09		11/28/2014	12:19
28000010.D	MW-41	K1413049-015	11/28/2014	12:22		11/28/2014	12:32
28000011.D	Continuing Calibration Verification	KWG1415840-2	11/28/2014	12:36		11/28/2014	12:45
28000012.D	Instrument Blank	KWG1415840-9	11/28/2014	12:49		11/28/2014	12:59
28000013.D	FIELD BLANK RINSATE	K1413049-019	11/28/2014	13:02		11/28/2014	13:12
28000014.D	MW-3	K1413049-020	11/28/2014	13:15		11/28/2014	13:25
28000015.D	Lab Control Sample	KWG1415702-3	11/28/2014	13:29		11/28/2014	13:39
28000016.D	Method Blank	KWG1415702-4	11/28/2014	13:42		11/28/2014	13:52
28000017.D	ZZZZZZ	ZZZZZZ	11/28/2014	13:55		11/28/2014	14:05
28000018.D	ZZZZZZ	ZZZZZZ	11/28/2014	14:09		11/28/2014	14:18
28000019.D	ZZZZZZ	ZZZZZZ	11/28/2014	14:22		11/28/2014	14:32
28000020.D	ZZZZZZ	ZZZZZZ	11/28/2014	14:35		11/28/2014	14:45
28000021.D	ZZZZZZ	ZZZZZZ	11/28/2014	14:49		11/28/2014	14:58
28000022.D	ZZZZZZ	ZZZZZZ	11/28/2014	15:02		11/28/2014	15:12
28000023.D	Continuing Calibration Verification	KWG1415840-3	11/28/2014	15:15		11/28/2014	15:25
28000024.D	Instrument Blank	KWG1415840-10	11/28/2014	15:28		11/28/2014	15:38
28000025.D	ZZZZZZ	ZZZZZZ	11/28/2014	15:42		11/28/2014	15:51
28000026.D	ZZZZZZ	ZZZZZZ	11/28/2014	15:55		11/28/2014	16:05
28000027.D	ZZZZZZ	ZZZZZZ	11/28/2014	16:08		11/28/2014	16:18
28000028.D	ZZZZZZ	ZZZZZZ	11/28/2014	16:21		11/28/2014	16:31
28000029.D	ZZZZZZ	ZZZZZZ	11/28/2014	16:35		11/28/2014	16:45
28000030.D	Batch QC	K1413047-003	11/28/2014	16:48		11/28/2014	16:58
28000031.D	Batch QCMS	KWG1415698-1	11/28/2014	17:01		11/28/2014	17:11
28000032.D	Batch QCDMS	KWG1415698-2	11/28/2014	17:15		11/28/2014	17:24
28000033.D	HCMW-7	K1413049-021	11/28/2014	17:28		11/28/2014	17:38
28000034.D	MW-15	K1413049-022	11/28/2014	17:41		11/28/2014	17:51
28000035.D	Continuing Calibration Verification	KWG1415840-4	11/28/2014	17:54		11/28/2014	18:04
28000036.D	Instrument Blank	KWG1415840-11	11/28/2014	18:08		11/28/2014	18:18

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington

Service Request: K1413049

Analysis Run Log
Pentachlorophenol

Analysis Method: 8151M

Analysis Lot: KWG1415840
 Instrument ID: GC36
 Column: RTX-CLP

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
28000037.D	MW-16	K1413049-023	11/28/2014	18:21		11/28/2014	18:31
28000038.D	MW-17	K1413049-024	11/28/2014	18:34		11/28/2014	18:44
28000039.D	MW-18	K1413049-025	11/28/2014	18:48		11/28/2014	18:57
28000040.D	MW-2	K1413049-026	11/28/2014	19:01		11/28/2014	19:11
28000041.D	MW-22	K1413049-027	11/28/2014	19:14		11/28/2014	19:24
28000043.D	MW-24	K1413049-029	11/28/2014	19:41		11/28/2014	19:50
28000044.D	MW-25	K1413049-030	11/28/2014	19:54		11/28/2014	20:04
28000045.D	MW-26	K1413049-031	11/28/2014	20:07		11/28/2014	20:17
28000046.D	ZZZZZZ	ZZZZZZ	11/28/2014	20:21		11/28/2014	20:30
28000047.D	Continuing Calibration Verification	KWG1415840-5	11/28/2014	20:34		11/28/2014	20:44
28000048.D	Instrument Blank	KWG1415840-12	11/28/2014	20:47		11/28/2014	20:57
28000049.D	ZZZZZZ	ZZZZZZ	11/28/2014	21:00		11/28/2014	21:10
28000050.D	Lab Control Sample	KWG1415698-3	11/28/2014	21:14		11/28/2014	21:23
28000051.D	Method Blank	KWG1415698-4	11/28/2014	21:27		11/28/2014	21:37
28000052.D	ZZZZZZ	ZZZZZZ	11/28/2014	21:40		11/28/2014	21:50
28000053.D	ZZZZZZ	ZZZZZZ	11/28/2014	21:53		11/28/2014	22:03
28000054.D	ZZZZZZ	ZZZZZZ	11/28/2014	22:07		11/28/2014	22:16
28000055.D	ZZZZZZ	ZZZZZZ	11/28/2014	22:20		11/28/2014	22:30
28000056.D	ZZZZZZ	ZZZZZZ	11/28/2014	22:33		11/28/2014	22:43
28000057.D	ZZZZZZ	ZZZZZZ	11/28/2014	22:47		11/28/2014	22:56
28000058.D	ZZZZZZ	ZZZZZZ	11/28/2014	23:00		11/28/2014	23:10
28000059.D	ZZZZZZ	ZZZZZZ	11/28/2014	23:13		11/28/2014	23:23
28000060.D	ZZZZZZ	ZZZZZZ	11/28/2014	23:26		11/28/2014	23:36
28000061.D	ZZZZZZ	ZZZZZZ	11/28/2014	23:40		11/28/2014	23:49
28000062.D	Continuing Calibration Verification	KWG1415840-6	11/28/2014	23:53		11/29/2014	00:03
28000063.D	Instrument Blank	KWG1415840-13	11/29/2014	00:06		11/29/2014	00:16
28000064.D	ZZZZZZ	ZZZZZZ	11/29/2014	00:19		11/29/2014	00:29
28000065.D	ZZZZZZ	ZZZZZZ	11/29/2014	00:33		11/29/2014	00:43
28000066.D	ZZZZZZ	ZZZZZZ	11/29/2014	00:46		11/29/2014	00:56
28000067.D	ZZZZZZ	ZZZZZZ	11/29/2014	00:59		11/29/2014	01:09
28000068.D	ZZZZZZ	ZZZZZZ	11/29/2014	01:13		11/29/2014	01:22
28000069.D	ZZZZZZ	ZZZZZZ	11/29/2014	01:26		11/29/2014	01:36
28000070.D	ZZZZZZ	ZZZZZZ	11/29/2014	01:39		11/29/2014	01:49
28000071.D	ZZZZZZ	ZZZZZZ	11/29/2014	01:52		11/29/2014	02:02

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

QA/QC Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington

Service Request: K1413049

Analysis Run Log
Pentachlorophenol

Analysis Method: 8151M

Analysis Lot: KWG1415840
 Instrument ID: GC36
 Column: RTX-CLP

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
28000072.D	ZZZZZZ	ZZZZZZ	11/29/2014	02:06		11/29/2014	02:16
28000073.D	ZZZZZZ	ZZZZZZ	11/29/2014	02:19		11/29/2014	02:29
28000074.D	Continuing Calibration Verification	KWG1415840-7	11/29/2014	02:32		11/29/2014	02:42
28000075.D	Instrument Blank	KWG1415840-14	11/29/2014	02:46		11/29/2014	02:55

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

QA/QC Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington

Service Request: K1413049

Analysis Run Log
Pentachlorophenol

Analysis Method: 8151M

Analysis Lot: KWG1415867
 Instrument ID: GC36
 Column: RTX-CLP

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
02000003.D	Continuing Calibration Verification	KWG1415867-1	12/2/2014	11:27		12/2/2014	11:37
02000004.D	Instrument Blank	KWG1415867-3	12/2/2014	11:41		12/2/2014	11:50
02000005.D	MW-33	K1413049-007	12/2/2014	11:54		12/2/2014	12:04
02000006.D	MW-23	K1413049-028	12/2/2014	12:07		12/2/2014	12:17
02000007.D	Batch QC	K1413047-003	12/2/2014	12:20		12/2/2014	12:30
02000008.D	ZZZZZZ	ZZZZZZ	12/2/2014	12:33		12/2/2014	12:43
02000009.D	ZZZZZZ	ZZZZZZ	12/2/2014	12:46		12/2/2014	12:56
02000010.D	Continuing Calibration Verification	KWG1415867-2	12/2/2014	13:00		12/2/2014	13:09

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

QA/QC Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington
 Sample Matrix: Water

Service Request: K1413049
 Date Extracted: 11/20/2014

Extraction Prep Log
Pentachlorophenol

Extraction Method: Method Mod
 Analysis Method: 8151M

Extraction Lot: KWG1415698
 Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
HCMW-7	K1413049-021	11/17/14	11/19/14	5mL	1mL	NA	
MW-15	K1413049-022	11/17/14	11/19/14	5mL	1mL	NA	
MW-16	K1413049-023	11/17/14	11/19/14	5mL	1mL	NA	
MW-17	K1413049-024	11/17/14	11/19/14	5mL	1mL	NA	
MW-18	K1413049-025	11/17/14	11/19/14	5mL	1mL	NA	
MW-2	K1413049-026	11/16/14	11/19/14	5mL	1mL	NA	
MW-22	K1413049-027	11/16/14	11/19/14	5mL	1mL	NA	
MW-23	K1413049-028	11/16/14	11/19/14	5mL	1mL	NA	
MW-24	K1413049-029	11/16/14	11/19/14	5mL	1mL	NA	
MW-25	K1413049-030	11/16/14	11/19/14	5mL	1mL	NA	
MW-26	K1413049-031	11/16/14	11/19/14	5mL	1mL	NA	
Method Blank	KWG1415698-4	NA	NA	5mL	1mL	NA	
Batch QC DL	K1413047-003	NA	NA	5mL	1mL	NA	
Batch QC	K1413047-003	NA	NA	5mL	1mL	NA	
Batch QCMS	KWG1415698-1	NA	NA	5mL	1mL	NA	
Batch QCDMS	KWG1415698-2	NA	NA	5mL	1mL	NA	
Lab Control Sample	KWG1415698-3	NA	NA	5mL	1mL	NA	

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

QA/QC Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington
 Sample Matrix: Water

Service Request: K1413049
 Date Extracted: 11/20/2014

Extraction Prep Log
Pentachlorophenol

Extraction Method: Method Mod
 Analysis Method: 8151M

Extraction Lot: KWG1415702
 Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
MW-27	K1413049-001	11/16/14	11/19/14	5mL	1mL	NA	
MW-28	K1413049-002	11/17/14	11/19/14	5mL	1mL	NA	
MW-29	K1413049-003	11/16/14	11/19/14	5mL	1mL	NA	
MW-30	K1413049-004	11/17/14	11/19/14	5mL	1mL	NA	
MW-31	K1413049-005	11/16/14	11/19/14	5mL	1mL	NA	
MW-32	K1413049-006	11/16/14	11/19/14	5mL	1mL	NA	
MW-33	K1413049-007	11/16/14	11/19/14	5mL	1mL	NA	
MW-34	K1413049-008	11/16/14	11/19/14	5mL	1mL	NA	
MW-35	K1413049-009	11/16/14	11/19/14	5mL	1mL	NA	
MW-36	K1413049-010	11/17/14	11/19/14	5mL	1mL	NA	
MW-37	K1413049-011	11/17/14	11/19/14	5mL	1mL	NA	
MW-38	K1413049-012	11/16/14	11/19/14	5mL	1mL	NA	
MW-39	K1413049-013	11/17/14	11/19/14	5mL	1mL	NA	
MW-40	K1413049-014	11/17/14	11/19/14	5mL	1mL	NA	
MW-41	K1413049-015	11/17/14	11/19/14	5mL	1mL	NA	
MW-42	K1413049-016	11/17/14	11/19/14	5mL	1mL	NA	
MW-43	K1413049-017	11/17/14	11/19/14	5mL	1mL	NA	
MW-45	K1413049-018	11/16/14	11/19/14	5mL	1mL	NA	
FIELD BLANK RINSATE	K1413049-019	11/17/14	11/19/14	5mL	1mL	NA	
MW-3	K1413049-020	11/16/14	11/19/14	5mL	1mL	NA	
Method Blank	KWG1415702-4	NA	NA	5mL	1mL	NA	
MW-36MS	KWG1415702-1	11/17/14	11/19/14	5mL	1mL	NA	
MW-36DMS	KWG1415702-2	11/17/14	11/19/14	5mL	1mL	NA	
Lab Control Sample	KWG1415702-3	NA	NA	5mL	1mL	NA	

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

Confirmation Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/17/2014
Date Received: 11/19/2014
Date Extracted: 11/20/2014

Pentachlorophenol

Sample Name: MW-28
Lab Code: K1413049-002
Extraction Method: Method Mod
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol	0.50	0.16	2.2	2.4	8.7		1	11/27/14

Confirmation Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/16/2014
Date Received: 11/19/2014
Date Extracted: 11/20/2014

Pentachlorophenol

Sample Name: MW-29
Lab Code: K1413049-003
Extraction Method: Method Mod
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol	0.50	0.16	44	46	4.4		1	11/27/14

Confirmation Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/16/2014
Date Received: 11/19/2014
Date Extracted: 11/20/2014

Pentachlorophenol

Sample Name: MW-31
Lab Code: K1413049-005
Extraction Method: Method Mod
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol	0.50	0.16	0.24	0.25	4.1	J	1	11/27/14

Confirmation Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/16/2014
Date Received: 11/19/2014
Date Extracted: 11/20/2014

Pentachlorophenol

Sample Name: MW-32
Lab Code: K1413049-006
Extraction Method: Method Mod
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol	5.0	1.6	420	430	2.4	D	10	11/28/14

Confirmation Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/16/2014
Date Received: 11/19/2014
Date Extracted: 11/20/2014

Pentachlorophenol

Sample Name: MW-33
Lab Code: K1413049-007
Extraction Method: Method Mod
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol	0.50	0.16	25	25	0.0		1	12/02/14

Confirmation Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/16/2014
Date Received: 11/19/2014
Date Extracted: 11/20/2014

Pentachlorophenol

Sample Name: MW-34
Lab Code: K1413049-008
Extraction Method: Method Mod
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol	5.0	1.6	250	260	3.9	D	10	11/28/14

Confirmation Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/17/2014
Date Received: 11/19/2014
Date Extracted: 11/20/2014

Pentachlorophenol

Sample Name: MW-36
Lab Code: K1413049-010
Extraction Method: Method Mod
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol	0.50	0.16	120	130	8.0		1	11/27/14

Confirmation Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington
 Sample Matrix: Water

Service Request: K1413049
 Date Collected: 11/17/2014
 Date Received: 11/19/2014
 Date Extracted: 11/20/2014

Pentachlorophenol

Sample Name: MW-37
 Lab Code: K1413049-011
 Extraction Method: Method Mod
 Analysis Method: 8151M

Units: ug/L
 Basis: NA
 Level: Low

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol	0.50	0.16	79	81	2.5		1	11/27/14

Confirmation Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/17/2014
Date Received: 11/19/2014
Date Extracted: 11/20/2014

Pentachlorophenol

Sample Name: MW-39
Lab Code: K1413049-013
Extraction Method: Method Mod
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol	0.50	0.16	110	110	0.0		1	11/27/14

Confirmation Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/17/2014
Date Received: 11/19/2014
Date Extracted: 11/20/2014

Pentachlorophenol

Sample Name: MW-40
Lab Code: K1413049-014
Extraction Method: Method Mod
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol	2.5	0.80	240	250	4.1	D	5	11/28/14

Confirmation Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/17/2014
Date Received: 11/19/2014
Date Extracted: 11/20/2014

Pentachlorophenol

Sample Name: MW-41
Lab Code: K1413049-015
Extraction Method: Method Mod
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol	2.5	0.80	350	370	5.6	D	5	11/28/14

Confirmation Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/17/2014
Date Received: 11/19/2014
Date Extracted: 11/20/2014

Pentachlorophenol

Sample Name: MW-42
Lab Code: K1413049-016
Extraction Method: Method Mod
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol	0.50	0.16	5.9	6.6	11.2		1	11/27/14

Confirmation Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington
 Sample Matrix: Water

Service Request: K1413049
 Date Collected: 11/16/2014
 Date Received: 11/19/2014
 Date Extracted: 11/20/2014

Pentachlorophenol

Sample Name: MW-45
 Lab Code: K1413049-018
 Extraction Method: Method Mod
 Analysis Method: 8151M

Units: ug/L
 Basis: NA
 Level: Low

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol	0.50	0.16	65	67	3.0		1	11/27/14

Confirmation Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/16/2014
Date Received: 11/19/2014
Date Extracted: 11/20/2014

Pentachlorophenol

Sample Name: MW-3
Lab Code: K1413049-020
Extraction Method: Method Mod
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol	5.0	1.6	720	750	4.1	D	10	11/28/14

Confirmation Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/16/2014
Date Received: 11/19/2014
Date Extracted: 11/20/2014

Pentachlorophenol

Sample Name: MW-22
Lab Code: K1413049-027
Extraction Method: Method Mod
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol	0.50	0.16	120	120	0.0		1	11/28/14

Confirmation Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/16/2014
Date Received: 11/19/2014
Date Extracted: 11/20/2014

Pentachlorophenol

Sample Name: MW-23
Lab Code: K1413049-028
Extraction Method: Method Mod
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol	2.5	0.80	200	210	4.9	D	5	12/02/14

Confirmation Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/16/2014
Date Received: 11/19/2014
Date Extracted: 11/20/2014

Pentachlorophenol

Sample Name: MW-24
Lab Code: K1413049-029
Extraction Method: Method Mod
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol	0.50	0.16	68	71	4.3		1	11/28/14

Confirmation Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/16/2014
Date Received: 11/19/2014
Date Extracted: 11/20/2014

Pentachlorophenol

Sample Name: MW-25
Lab Code: K1413049-030
Extraction Method: Method Mod
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Pentachlorophenol	0.50	0.16	110	110	0.0		1	11/28/14

Analytical Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington
 Sample Matrix: Water

Service Request: K1413049
 Date Collected: 11/17/2014
 Date Received: 11/19/2014

Polynuclear Aromatic Hydrocarbons

Sample Name:	MW-30	Units:	ug/L
Lab Code:	K1413049-004	Basis:	NA
Extraction Method:	EPA 3520C	Level:	Low
Analysis Method:	8270D SIM		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	ND U	0.019	0.0038	1	11/20/14	12/02/14	KWG1415502	
2-Methylnaphthalene	0.0041 J	0.019	0.0023	1	11/20/14	12/02/14	KWG1415502	
Acenaphthylene	ND U	0.019	0.0034	1	11/20/14	12/02/14	KWG1415502	
Acenaphthene	ND U	0.019	0.0044	1	11/20/14	12/02/14	KWG1415502	
Fluorene	ND U	0.019	0.0038	1	11/20/14	12/02/14	KWG1415502	
Phenanthrene	ND U	0.019	0.0050	1	11/20/14	12/02/14	KWG1415502	
Anthracene	ND U	0.019	0.0036	1	11/20/14	12/02/14	KWG1415502	
Fluoranthene	ND U	0.019	0.010	1	11/20/14	12/02/14	KWG1415502	
Pyrene	ND U	0.019	0.0053	1	11/20/14	12/02/14	KWG1415502	
Benz(a)anthracene	0.0027 J	0.019	0.0026	1	11/20/14	12/02/14	KWG1415502	
Chrysene	ND U	0.019	0.0034	1	11/20/14	12/02/14	KWG1415502	
Benzo(b)fluoranthene	ND U	0.019	0.0041	1	11/20/14	12/02/14	KWG1415502	
Benzo(k)fluoranthene	ND U	0.019	0.0030	1	11/20/14	12/02/14	KWG1415502	
Benzo(a)pyrene	ND U	0.019	0.0043	1	11/20/14	12/02/14	KWG1415502	
Indeno(1,2,3-cd)pyrene	ND U	0.019	0.0026	1	11/20/14	12/02/14	KWG1415502	
Dibenz(a,h)anthracene	ND U	0.019	0.0025	1	11/20/14	12/02/14	KWG1415502	
Benzo(g,h,i)perylene	ND U	0.019	0.0029	1	11/20/14	12/02/14	KWG1415502	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	85	46-114	12/02/14	Acceptable
Fluoranthene-d10	86	51-121	12/02/14	Acceptable
Terphenyl-d14	84	58-140	12/02/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington
 Sample Matrix: Water

Service Request: K1413049
 Date Collected: 11/16/2014
 Date Received: 11/19/2014

Polynuclear Aromatic Hydrocarbons

Sample Name:	MW-35	Units:	ug/L
Lab Code:	K1413049-009	Basis:	NA
Extraction Method:	EPA 3520C	Level:	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	0.0061	J	0.019	0.0038	1	11/20/14	12/02/14	KWG1415502	
2-Methylnaphthalene	ND	U	0.019	0.0023	1	11/20/14	12/02/14	KWG1415502	
Acenaphthylene	ND	U	0.019	0.0034	1	11/20/14	12/02/14	KWG1415502	
Acenaphthene	ND	U	0.019	0.0044	1	11/20/14	12/02/14	KWG1415502	
Fluorene	ND	U	0.019	0.0038	1	11/20/14	12/02/14	KWG1415502	
Phenanthrene	ND	U	0.019	0.0050	1	11/20/14	12/02/14	KWG1415502	
Anthracene	ND	U	0.019	0.0036	1	11/20/14	12/02/14	KWG1415502	
Fluoranthene	ND	U	0.019	0.010	1	11/20/14	12/02/14	KWG1415502	
Pyrene	ND	U	0.019	0.0053	1	11/20/14	12/02/14	KWG1415502	
Benz(a)anthracene	ND	U	0.019	0.0026	1	11/20/14	12/02/14	KWG1415502	
Chrysene	ND	U	0.019	0.0034	1	11/20/14	12/02/14	KWG1415502	
Benzo(b)fluoranthene	ND	U	0.019	0.0041	1	11/20/14	12/02/14	KWG1415502	
Benzo(k)fluoranthene	ND	U	0.019	0.0030	1	11/20/14	12/02/14	KWG1415502	
Benzo(a)pyrene	ND	U	0.019	0.0043	1	11/20/14	12/02/14	KWG1415502	
Indeno(1,2,3-cd)pyrene	ND	U	0.019	0.0026	1	11/20/14	12/02/14	KWG1415502	
Dibenz(a,h)anthracene	ND	U	0.019	0.0025	1	11/20/14	12/02/14	KWG1415502	
Benzo(g,h,i)perylene	ND	U	0.019	0.0029	1	11/20/14	12/02/14	KWG1415502	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	88	46-114	12/02/14	Acceptable
Fluoranthene-d10	90	51-121	12/02/14	Acceptable
Terphenyl-d14	85	58-140	12/02/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/17/2014
Date Received: 11/19/2014

Polynuclear Aromatic Hydrocarbons

Sample Name:	MW-36	Units:	ug/L
Lab Code:	K1413049-010	Basis:	NA
Extraction Method:	EPA 3520C	Level:	Low
Analysis Method:	8270D SIM		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	0.0063 J	0.019	0.0038	1	11/20/14	12/02/14	KWG1415502	
2-Methylnaphthalene	ND U	0.019	0.0023	1	11/20/14	12/02/14	KWG1415502	
Acenaphthylene	ND U	0.019	0.0034	1	11/20/14	12/02/14	KWG1415502	
Acenaphthene	ND U	0.019	0.0044	1	11/20/14	12/02/14	KWG1415502	
Fluorene	ND U	0.019	0.0038	1	11/20/14	12/02/14	KWG1415502	
Phenanthrene	ND U	0.019	0.0050	1	11/20/14	12/02/14	KWG1415502	
Anthracene	ND U	0.019	0.0036	1	11/20/14	12/02/14	KWG1415502	
Fluoranthene	ND U	0.019	0.010	1	11/20/14	12/02/14	KWG1415502	
Pyrene	ND U	0.019	0.0053	1	11/20/14	12/02/14	KWG1415502	
Benz(a)anthracene	0.0060 J	0.019	0.0026	1	11/20/14	12/02/14	KWG1415502	
Chrysene	0.0045 J	0.019	0.0034	1	11/20/14	12/02/14	KWG1415502	
Benzo(b)fluoranthene	ND U	0.019	0.0041	1	11/20/14	12/02/14	KWG1415502	
Benzo(k)fluoranthene	0.0038 J	0.019	0.0030	1	11/20/14	12/02/14	KWG1415502	
Benzo(a)pyrene	ND U	0.019	0.0043	1	11/20/14	12/02/14	KWG1415502	
Indeno(1,2,3-cd)pyrene	0.0048 J	0.019	0.0026	1	11/20/14	12/02/14	KWG1415502	*
Dibenz(a,h)anthracene	0.0042 J	0.019	0.0025	1	11/20/14	12/02/14	KWG1415502	
Benzo(g,h,i)perylene	0.0045 J	0.019	0.0029	1	11/20/14	12/02/14	KWG1415502	

* See Case Narrative

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	89	46-114	12/02/14	Acceptable
Fluoranthene-d10	91	51-121	12/02/14	Acceptable
Terphenyl-d14	84	58-140	12/02/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington
 Sample Matrix: Water

Service Request: K1413049
 Date Collected: 11/17/2014
 Date Received: 11/19/2014

Polynuclear Aromatic Hydrocarbons

Sample Name: MW-37
 Lab Code: K1413049-011
 Extraction Method: EPA 3520C
 Analysis Method: 8270D SIM

Units: ug/L
 Basis: NA

Level: Low

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	0.0063	J	0.019	0.0038	1	11/20/14	12/02/14	KWG1415502	
2-Methylnaphthalene	ND	U	0.019	0.0023	1	11/20/14	12/02/14	KWG1415502	
Acenaphthylene	ND	U	0.019	0.0034	1	11/20/14	12/02/14	KWG1415502	
Acenaphthene	ND	U	0.019	0.0044	1	11/20/14	12/02/14	KWG1415502	
Fluorene	ND	U	0.019	0.0038	1	11/20/14	12/02/14	KWG1415502	
Phenanthrene	ND	U	0.019	0.0050	1	11/20/14	12/02/14	KWG1415502	
Anthracene	ND	U	0.019	0.0036	1	11/20/14	12/02/14	KWG1415502	
Fluoranthene	ND	U	0.019	0.010	1	11/20/14	12/02/14	KWG1415502	
Pyrene	ND	U	0.019	0.0053	1	11/20/14	12/02/14	KWG1415502	
Benz(a)anthracene	ND	U	0.019	0.0026	1	11/20/14	12/02/14	KWG1415502	
Chrysene	ND	U	0.019	0.0034	1	11/20/14	12/02/14	KWG1415502	
Benzo(b)fluoranthene	ND	U	0.019	0.0041	1	11/20/14	12/02/14	KWG1415502	
Benzo(k)fluoranthene	ND	U	0.019	0.0030	1	11/20/14	12/02/14	KWG1415502	
Benzo(a)pyrene	ND	U	0.019	0.0043	1	11/20/14	12/02/14	KWG1415502	
Indeno(1,2,3-cd)pyrene	ND	U	0.019	0.0026	1	11/20/14	12/02/14	KWG1415502	
Dibenz(a,h)anthracene	ND	U	0.019	0.0025	1	11/20/14	12/02/14	KWG1415502	
Benzo(g,h,i)perylene	ND	U	0.019	0.0029	1	11/20/14	12/02/14	KWG1415502	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	83	46-114	12/02/14	Acceptable
Fluoranthene-d10	86	51-121	12/02/14	Acceptable
Terphenyl-d14	81	58-140	12/02/14	Acceptable

Comments:

Analytical Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/17/2014
Date Received: 11/19/2014

Polynuclear Aromatic Hydrocarbons

Sample Name: FIELD BLANK RINSATE **Units:** ug/L
Lab Code: K1413049-019 **Basis:** NA
Extraction Method: EPA 3520C **Level:** Low
Analysis Method: 8270D SIM

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	0.0095 J	0.020	0.0038	1	11/20/14	12/02/14	KWG1415502	
2-Methylnaphthalene	ND U	0.020	0.0023	1	11/20/14	12/02/14	KWG1415502	
Acenaphthylene	ND U	0.020	0.0034	1	11/20/14	12/02/14	KWG1415502	
Acenaphthene	ND U	0.020	0.0044	1	11/20/14	12/02/14	KWG1415502	
Fluorene	ND U	0.020	0.0038	1	11/20/14	12/02/14	KWG1415502	
Phenanthrene	ND U	0.020	0.0050	1	11/20/14	12/02/14	KWG1415502	
Anthracene	ND U	0.020	0.0036	1	11/20/14	12/02/14	KWG1415502	
Fluoranthene	ND U	0.020	0.010	1	11/20/14	12/02/14	KWG1415502	
Pyrene	ND U	0.020	0.0053	1	11/20/14	12/02/14	KWG1415502	
Benz(a)anthracene	ND U	0.020	0.0026	1	11/20/14	12/02/14	KWG1415502	
Chrysene	ND U	0.020	0.0034	1	11/20/14	12/02/14	KWG1415502	
Benzo(b)fluoranthene	ND U	0.020	0.0041	1	11/20/14	12/02/14	KWG1415502	
Benzo(k)fluoranthene	ND U	0.020	0.0030	1	11/20/14	12/02/14	KWG1415502	
Benzo(a)pyrene	ND U	0.020	0.0043	1	11/20/14	12/02/14	KWG1415502	
Indeno(1,2,3-cd)pyrene	ND U	0.020	0.0026	1	11/20/14	12/02/14	KWG1415502	
Dibenz(a,h)anthracene	ND U	0.020	0.0025	1	11/20/14	12/02/14	KWG1415502	
Benzo(g,h,i)perylene	ND U	0.020	0.0029	1	11/20/14	12/02/14	KWG1415502	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	89	46-114	12/02/14	Acceptable
Fluoranthene-d10	89	51-121	12/02/14	Acceptable
Terphenyl-d14	84	58-140	12/02/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington
 Sample Matrix: Water

Service Request: K1413049
 Date Collected: 11/16/2014
 Date Received: 11/19/2014

Polynuclear Aromatic Hydrocarbons

Sample Name:	MW-3	Units:	ug/L
Lab Code:	K1413049-020	Basis:	NA
Extraction Method:	EPA 3520C	Level:	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	0.48		0.020	0.0038	1	11/20/14	12/03/14	KWG1415502	
2-Methylnaphthalene	0.018	J	0.020	0.0023	1	11/20/14	12/03/14	KWG1415502	
Acenaphthylene	0.037		0.020	0.0034	1	11/20/14	12/03/14	KWG1415502	
Acenaphthene	0.081		0.020	0.0044	1	11/20/14	12/03/14	KWG1415502	
Fluorene	0.10		0.020	0.0038	1	11/20/14	12/03/14	KWG1415502	
Phenanthrene	ND	U	0.020	0.0050	1	11/20/14	12/03/14	KWG1415502	
Anthracene	0.038		0.020	0.0036	1	11/20/14	12/03/14	KWG1415502	
Fluoranthene	ND	U	0.020	0.010	1	11/20/14	12/03/14	KWG1415502	
Pyrene	ND	U	0.020	0.0053	1	11/20/14	12/03/14	KWG1415502	
Benz(a)anthracene	0.0033	J	0.020	0.0026	1	11/20/14	12/03/14	KWG1415502	
Chrysene	ND	U	0.020	0.0034	1	11/20/14	12/03/14	KWG1415502	
Benzo(b)fluoranthene	ND	U	0.020	0.0041	1	11/20/14	12/03/14	KWG1415502	
Benzo(k)fluoranthene	ND	U	0.020	0.0030	1	11/20/14	12/03/14	KWG1415502	
Benzo(a)pyrene	ND	U	0.020	0.0043	1	11/20/14	12/03/14	KWG1415502	
Indeno(1,2,3-cd)pyrene	ND	U	0.020	0.0026	1	11/20/14	12/03/14	KWG1415502	
Dibenz(a,h)anthracene	ND	U	0.020	0.0025	1	11/20/14	12/03/14	KWG1415502	
Benzo(g,h,i)perylene	ND	U	0.020	0.0029	1	11/20/14	12/03/14	KWG1415502	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	91	46-114	12/03/14	Acceptable
Fluoranthene-d10	94	51-121	12/03/14	Acceptable
Terphenyl-d14	86	58-140	12/03/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington
 Sample Matrix: Water

Service Request: K1413049
 Date Collected: 11/17/2014
 Date Received: 11/19/2014

Polynuclear Aromatic Hydrocarbons

Sample Name: MW-15 Units: ug/L
 Lab Code: K1413049-022 Basis: NA
 Extraction Method: EPA 3520C Level: Low
 Analysis Method: 8270D SIM

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	0.0064 J	0.019	0.0038	1	11/20/14	12/03/14	KWG1415502	
2-Methylnaphthalene	ND U	0.019	0.0023	1	11/20/14	12/03/14	KWG1415502	
Acenaphthylene	ND U	0.019	0.0034	1	11/20/14	12/03/14	KWG1415502	
Acenaphthene	ND U	0.019	0.0044	1	11/20/14	12/03/14	KWG1415502	
Fluorene	ND U	0.019	0.0038	1	11/20/14	12/03/14	KWG1415502	
Phenanthrene	ND U	0.019	0.0050	1	11/20/14	12/03/14	KWG1415502	
Anthracene	ND U	0.019	0.0036	1	11/20/14	12/03/14	KWG1415502	
Fluoranthene	ND U	0.019	0.010	1	11/20/14	12/03/14	KWG1415502	
Pyrene	ND U	0.019	0.0053	1	11/20/14	12/03/14	KWG1415502	
Benz(a)anthracene	ND U	0.019	0.0026	1	11/20/14	12/03/14	KWG1415502	
Chrysene	ND U	0.019	0.0034	1	11/20/14	12/03/14	KWG1415502	
Benzo(b)fluoranthene	ND U	0.019	0.0041	1	11/20/14	12/03/14	KWG1415502	
Benzo(k)fluoranthene	ND U	0.019	0.0030	1	11/20/14	12/03/14	KWG1415502	
Benzo(a)pyrene	ND U	0.019	0.0043	1	11/20/14	12/03/14	KWG1415502	
Indeno(1,2,3-cd)pyrene	ND U	0.019	0.0026	1	11/20/14	12/03/14	KWG1415502	
Dibenz(a,h)anthracene	ND U	0.019	0.0025	1	11/20/14	12/03/14	KWG1415502	
Benzo(g,h,i)perylene	ND U	0.019	0.0029	1	11/20/14	12/03/14	KWG1415502	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	89	46-114	12/03/14	Acceptable
Fluoranthene-d10	90	51-121	12/03/14	Acceptable
Terphenyl-d14	84	58-140	12/03/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/17/2014
Date Received: 11/19/2014

Polynuclear Aromatic Hydrocarbons

Sample Name:	MW-16	Units:	ug/L
Lab Code:	K1413049-023	Basis:	NA
Extraction Method:	EPA 3520C	Level:	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	0.029		0.019	0.0038	1	11/20/14	12/03/14	KWG1415502	
2-Methylnaphthalene	ND	U	0.019	0.0023	1	11/20/14	12/03/14	KWG1415502	
Acenaphthylene	ND	U	0.019	0.0034	1	11/20/14	12/03/14	KWG1415502	
Acenaphthene	ND	U	0.019	0.0044	1	11/20/14	12/03/14	KWG1415502	
Fluorene	ND	U	0.019	0.0038	1	11/20/14	12/03/14	KWG1415502	
Phenanthrene	ND	U	0.019	0.0050	1	11/20/14	12/03/14	KWG1415502	
Anthracene	ND	U	0.019	0.0036	1	11/20/14	12/03/14	KWG1415502	
Fluoranthene	ND	U	0.019	0.010	1	11/20/14	12/03/14	KWG1415502	
Pyrene	ND	U	0.019	0.0053	1	11/20/14	12/03/14	KWG1415502	
Benz(a)anthracene	ND	U	0.019	0.0026	1	11/20/14	12/03/14	KWG1415502	
Chrysene	ND	U	0.019	0.0034	1	11/20/14	12/03/14	KWG1415502	
Benzo(b)fluoranthene	ND	U	0.019	0.0041	1	11/20/14	12/03/14	KWG1415502	
Benzo(k)fluoranthene	ND	U	0.019	0.0030	1	11/20/14	12/03/14	KWG1415502	
Benzo(a)pyrene	ND	U	0.019	0.0043	1	11/20/14	12/03/14	KWG1415502	
Indeno(1,2,3-cd)pyrene	ND	U	0.019	0.0026	1	11/20/14	12/03/14	KWG1415502	
Dibenz(a,h)anthracene	ND	U	0.019	0.0025	1	11/20/14	12/03/14	KWG1415502	
Benzo(g,h,i)perylene	ND	U	0.019	0.0029	1	11/20/14	12/03/14	KWG1415502	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	88	46-114	12/03/14	Acceptable
Fluoranthene-d10	91	51-121	12/03/14	Acceptable
Terphenyl-d14	87	58-140	12/03/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/17/2014
Date Received: 11/19/2014

Polynuclear Aromatic Hydrocarbons

Sample Name:	MW-17	Units:	ug/L
Lab Code:	K1413049-024	Basis:	NA
Extraction Method:	EPA 3520C	Level:	Low
Analysis Method:	8270D SIM		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	0.0070 J	0.019	0.0038	1	11/20/14	12/03/14	KWG1415502	
2-Methylnaphthalene	ND U	0.019	0.0023	1	11/20/14	12/03/14	KWG1415502	
Acenaphthylene	ND U	0.019	0.0034	1	11/20/14	12/03/14	KWG1415502	
Acenaphthene	ND U	0.019	0.0044	1	11/20/14	12/03/14	KWG1415502	
Fluorene	ND U	0.019	0.0038	1	11/20/14	12/03/14	KWG1415502	
Phenanthrene	ND U	0.019	0.0050	1	11/20/14	12/03/14	KWG1415502	
Anthracene	ND U	0.019	0.0036	1	11/20/14	12/03/14	KWG1415502	
Fluoranthene	ND U	0.019	0.010	1	11/20/14	12/03/14	KWG1415502	
Pyrene	ND U	0.019	0.0053	1	11/20/14	12/03/14	KWG1415502	
Benz(a)anthracene	ND U	0.019	0.0026	1	11/20/14	12/03/14	KWG1415502	
Chrysene	ND U	0.019	0.0034	1	11/20/14	12/03/14	KWG1415502	
Benzo(b)fluoranthene	ND U	0.019	0.0041	1	11/20/14	12/03/14	KWG1415502	
Benzo(k)fluoranthene	ND U	0.019	0.0030	1	11/20/14	12/03/14	KWG1415502	
Benzo(a)pyrene	ND U	0.019	0.0043	1	11/20/14	12/03/14	KWG1415502	
Indeno(1,2,3-cd)pyrene	ND U	0.019	0.0026	1	11/20/14	12/03/14	KWG1415502	
Dibenz(a,h)anthracene	ND U	0.019	0.0025	1	11/20/14	12/03/14	KWG1415502	
Benzo(g,h,i)perylene	ND U	0.019	0.0029	1	11/20/14	12/03/14	KWG1415502	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	87	46-114	12/03/14	Acceptable
Fluoranthene-d10	88	51-121	12/03/14	Acceptable
Terphenyl-d14	83	58-140	12/03/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: 11/17/2014
Date Received: 11/19/2014

Polynuclear Aromatic Hydrocarbons

Sample Name:	MW-18	Units:	ug/L
Lab Code:	K1413049-025	Basis:	NA
Extraction Method:	EPA 3520C	Level:	Low
Analysis Method:	8270D SIM		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	0.036	0.019	0.0038	1	11/20/14	12/03/14	KWG1415502	
2-Methylnaphthalene	ND U	0.019	0.0023	1	11/20/14	12/03/14	KWG1415502	
Acenaphthylene	ND U	0.019	0.0034	1	11/20/14	12/03/14	KWG1415502	
Acenaphthene	ND U	0.019	0.0044	1	11/20/14	12/03/14	KWG1415502	
Fluorene	ND U	0.019	0.0038	1	11/20/14	12/03/14	KWG1415502	
Phenanthrene	ND U	0.019	0.0050	1	11/20/14	12/03/14	KWG1415502	
Anthracene	ND U	0.019	0.0036	1	11/20/14	12/03/14	KWG1415502	
Fluoranthene	ND U	0.019	0.010	1	11/20/14	12/03/14	KWG1415502	
Pyrene	ND U	0.019	0.0053	1	11/20/14	12/03/14	KWG1415502	
Benz(a)anthracene	0.0027 J	0.019	0.0026	1	11/20/14	12/03/14	KWG1415502	
Chrysene	ND U	0.019	0.0034	1	11/20/14	12/03/14	KWG1415502	
Benzo(b)fluoranthene	ND U	0.019	0.0041	1	11/20/14	12/03/14	KWG1415502	
Benzo(k)fluoranthene	ND U	0.019	0.0030	1	11/20/14	12/03/14	KWG1415502	
Benzo(a)pyrene	ND U	0.019	0.0043	1	11/20/14	12/03/14	KWG1415502	
Indeno(1,2,3-cd)pyrene	ND U	0.019	0.0026	1	11/20/14	12/03/14	KWG1415502	
Dibenz(a,h)anthracene	ND U	0.019	0.0025	1	11/20/14	12/03/14	KWG1415502	
Benzo(g,h,i)perylene	ND U	0.019	0.0029	1	11/20/14	12/03/14	KWG1415502	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	87	46-114	12/03/14	Acceptable
Fluoranthene-d10	86	51-121	12/03/14	Acceptable
Terphenyl-d14	81	58-140	12/03/14	Acceptable

Comments: _____

Analytical Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington
 Sample Matrix: Water

Service Request: K1413049
 Date Collected: 11/16/2014
 Date Received: 11/19/2014

Polynuclear Aromatic Hydrocarbons

Sample Name: MW-2 Units: ug/L
 Lab Code: K1413049-026 Basis: NA
 Extraction Method: EPA 3520C Level: Low
 Analysis Method: 8270D SIM

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	0.014 J	0.020	0.0038	1	11/20/14	12/03/14	KWG1415502	
2-Methylnaphthalene	0.0026 J	0.020	0.0023	1	11/20/14	12/03/14	KWG1415502	
Acenaphthylene	ND U	0.020	0.0034	1	11/20/14	12/03/14	KWG1415502	
Acenaphthene	ND U	0.020	0.0044	1	11/20/14	12/03/14	KWG1415502	
Fluorene	ND U	0.020	0.0038	1	11/20/14	12/03/14	KWG1415502	
Phenanthrene	ND U	0.020	0.0050	1	11/20/14	12/03/14	KWG1415502	
Anthracene	ND U	0.020	0.0036	1	11/20/14	12/03/14	KWG1415502	
Fluoranthene	ND U	0.020	0.010	1	11/20/14	12/03/14	KWG1415502	
Pyrene	ND U	0.020	0.0053	1	11/20/14	12/03/14	KWG1415502	
Benz(a)anthracene	ND U	0.020	0.0026	1	11/20/14	12/03/14	KWG1415502	
Chrysene	ND U	0.020	0.0034	1	11/20/14	12/03/14	KWG1415502	
Benzo(b)fluoranthene	ND U	0.020	0.0041	1	11/20/14	12/03/14	KWG1415502	
Benzo(k)fluoranthene	ND U	0.020	0.0030	1	11/20/14	12/03/14	KWG1415502	
Benzo(a)pyrene	ND U	0.020	0.0043	1	11/20/14	12/03/14	KWG1415502	
Indeno(1,2,3-cd)pyrene	ND U	0.020	0.0026	1	11/20/14	12/03/14	KWG1415502	
Dibenz(a,h)anthracene	ND U	0.020	0.0025	1	11/20/14	12/03/14	KWG1415502	
Benzo(g,h,i)perylene	ND U	0.020	0.0029	1	11/20/14	12/03/14	KWG1415502	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	89	46-114	12/03/14	Acceptable
Fluoranthene-d10	89	51-121	12/03/14	Acceptable
Terphenyl-d14	84	58-140	12/03/14	Acceptable

Comments:

Analytical Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Collected: NA
Date Received: NA

Polynuclear Aromatic Hydrocarbons

Sample Name:	Method Blank	Units:	ug/L
Lab Code:	KWG1415502-3	Basis:	NA
Extraction Method:	EPA 3520C	Level:	Low
Analysis Method:	8270D SIM		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	ND U	0.019	0.0038	1	11/20/14	12/02/14	KWG1415502	
2-Methylnaphthalene	ND U	0.019	0.0023	1	11/20/14	12/02/14	KWG1415502	
Acenaphthylene	ND U	0.019	0.0034	1	11/20/14	12/02/14	KWG1415502	
Acenaphthene	ND U	0.019	0.0044	1	11/20/14	12/02/14	KWG1415502	
Fluorene	ND U	0.019	0.0038	1	11/20/14	12/02/14	KWG1415502	
Phenanthrene	ND U	0.019	0.0050	1	11/20/14	12/02/14	KWG1415502	
Anthracene	ND U	0.019	0.0036	1	11/20/14	12/02/14	KWG1415502	
Fluoranthene	ND U	0.019	0.010	1	11/20/14	12/02/14	KWG1415502	
Pyrene	ND U	0.019	0.0053	1	11/20/14	12/02/14	KWG1415502	
Benz(a)anthracene	0.0026 J	0.019	0.0026	1	11/20/14	12/02/14	KWG1415502	
Chrysene	ND U	0.019	0.0034	1	11/20/14	12/02/14	KWG1415502	
Benzo(b)fluoranthene	ND U	0.019	0.0041	1	11/20/14	12/02/14	KWG1415502	
Benzo(k)fluoranthene	ND U	0.019	0.0030	1	11/20/14	12/02/14	KWG1415502	
Benzo(a)pyrene	ND U	0.019	0.0043	1	11/20/14	12/02/14	KWG1415502	
Indeno(1,2,3-cd)pyrene	ND U	0.019	0.0026	1	11/20/14	12/02/14	KWG1415502	
Dibenz(a,h)anthracene	ND U	0.019	0.0025	1	11/20/14	12/02/14	KWG1415502	
Benzo(g,h,i)perylene	ND U	0.019	0.0029	1	11/20/14	12/02/14	KWG1415502	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	81	46-114	12/02/14	Acceptable
Fluoranthene-d10	88	51-121	12/02/14	Acceptable
Terphenyl-d14	85	58-140	12/02/14	Acceptable

Comments: _____

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049

Surrogate Recovery Summary Polynuclear Aromatic Hydrocarbons

Extraction Method: EPA 3520C **Analysis Method:** 8270D SIM **Units:** Percent **Level:** Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>	<u>Sur2</u>	<u>Sur3</u>
MW-30	K1413049-004	85	86	84
MW-35	K1413049-009	88	90	85
MW-36	K1413049-010	89	91	84
MW-37	K1413049-011	83	86	81
FIELD BLANK RINSATE	K1413049-019	89	89	84
MW-3	K1413049-020	91	94	86
MW-15	K1413049-022	89	90	84
MW-16	K1413049-023	88	91	87
MW-17	K1413049-024	87	88	83
MW-18	K1413049-025	87	86	81
MW-2	K1413049-026	89	89	84
Method Blank	KWG1415502-3	81	88	85
Lab Control Sample	KWG1415502-1	91	95	92
Duplicate Lab Control Sample	KWG1415502-2	91	94	91

Surrogate Recovery Control Limits (%)

Sur1 = Fluorene-d10 46-114
 Sur2 = Fluoranthene-d10 51-121
 Sur3 = Terphenyl-d14 58-140

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

QA/QC Report

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington

Service Request: K1413049
 Date Analyzed: 12/02/2014
 Time Analyzed: 20:05

Internal Standard Area and RT Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS14\DATA\120214\1202F027.D
 Instrument ID: MS14
 Analysis Method: 8270D SIM

Lab Code: KWG1415964-2
 Analysis Lot: KWG1415964

	Naphthalene-d8		Acenaphthene-d10		Phenanthrene-d10	
	Area	RT	Area	RT	Area	RT
Results ==>	160,705	4.80	90,403	6.39	181,911	7.63
Upper Limit ==>	321,410	5.30	180,806	6.89	363,822	8.13
Lower Limit ==>	80,353	4.30	45,202	5.89	90,956	7.13
ICAL Result ==>	181,561	4.79	97,711	6.39	192,888	7.63

Associated Analyses

Method Blank	KWG1415502-3	173,515	4.80	99,640	6.39	195,650	7.63
Lab Control Sample	KWG1415502-1	169,589	4.80	93,037	6.39	184,592	7.63
Duplicate Lab Control Sample	KWG1415502-2	168,503	4.80	92,140	6.39	183,486	7.63
MW-30	K1413049-004	185,591	4.80	105,900	6.39	209,726	7.63
MW-35	K1413049-009	208,635	4.80	119,576	6.39	235,567	7.63
MW-36	K1413049-010	203,907	4.80	114,149	6.39	213,586	7.64
MW-37	K1413049-011	207,330	4.79	117,214	6.39	223,303	7.64
FIELD BLANK RINSATE	K1413049-019	205,523	4.80	117,283	6.39	231,784	7.63
MW-3	K1413049-020	192,492	4.80	110,540	6.39	207,229	7.66
MW-15	K1413049-022	198,820	4.80	113,819	6.39	220,214	7.63
MW-16	K1413049-023	197,564	4.80	113,451	6.39	224,709	7.63
MW-17	K1413049-024	197,245	4.80	113,059	6.39	222,758	7.63
MW-18	K1413049-025	186,835	4.80	106,659	6.39	212,905	7.63
MW-2	K1413049-026	201,567	4.80	115,266	6.39	228,757	7.63

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Report

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington

Service Request: K1413049
 Date Analyzed: 12/02/2014
 Time Analyzed: 20:05

**Internal Standard Area and RT Summary
 Polynuclear Aromatic Hydrocarbons**

File ID: J:\MS14\DATA\120214\1202F027.D
 Instrument ID: MS14
 Analysis Method: 8270D SIM

Lab Code: KWG1415964-2
 Analysis Lot: KWG1415964

	Chrysene-d12		Perylene-d12	
	Area	RT	Area	RT
Results ==>	208,849	10.22	228,329	13.43
Upper Limit ==>	417,698	10.72	456,658	13.93
Lower Limit ==>	104,425	9.72	114,165	12.93
ICAL Result ==>	213,597	10.21	235,643	13.40

Associated Analyses

Method Blank	KWG1415502-3	226,419	10.22	228,802	13.42
Lab Control Sample	KWG1415502-1	205,148	10.22	218,449	13.42
Duplicate Lab Control Sample	KWG1415502-2	203,574	10.22	213,017	13.42
MW-30	K1413049-004	235,392	10.22	236,213	13.42
MW-35	K1413049-009	264,884	10.22	267,054	13.42
MW-36	K1413049-010	261,824	10.23	280,136	13.43
MW-37	K1413049-011	269,657	10.22	287,861	13.43
FIELD BLANK RINSATE	K1413049-019	273,943	10.22	287,376	13.42
MW-3	K1413049-020	260,923	10.23	274,724	13.43
MW-15	K1413049-022	261,463	10.22	275,865	13.42
MW-16	K1413049-023	262,062	10.22	277,198	13.43
MW-17	K1413049-024	261,492	10.22	275,530	13.42
MW-18	K1413049-025	251,067	10.22	263,252	13.42
MW-2	K1413049-026	268,761	10.22	284,126	13.42

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Report

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington
 Sample Matrix: Water

Service Request: K1413049
 Date Extracted: 11/20/2014
 Date Analyzed: 12/02/2014

Lab Control Spike/Duplicate Lab Control Spike Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method: EPA 3520C
 Analysis Method: 8270D SIM

Units: ug/L

Basis: NA

Level: Low

Extraction Lot: KWG1415502

Analyte Name	Lab Control Sample			Duplicate Lab Control Sample			%Rec Limits	RPD	RPD Limit			
	KWG1415502-1			KWG1415502-2								
	Lab Control Spike			Duplicate Lab Control Spike								
Result	Spike Amount	%Rec	Result	Spike Amount	%Rec							
Naphthalene	2.34	2.50	94	2.26	2.50	90	39-110	4	30			
2-Methylnaphthalene	2.23	2.50	89	2.13	2.50	85	39-115	5	30			
Acenaphthylene	2.36	2.50	94	2.28	2.50	91	44-115	3	30			
Acenaphthene	2.38	2.50	95	2.30	2.50	92	44-113	3	30			
Fluorene	2.44	2.50	98	2.37	2.50	95	48-118	3	30			
Phenanthrene	2.50	2.50	100	2.43	2.50	97	47-120	3	30			
Anthracene	2.43	2.50	97	2.41	2.50	97	44-117	1	30			
Fluoranthene	2.59	2.50	104	2.53	2.50	101	48-128	2	30			
Pyrene	2.60	2.50	104	2.53	2.50	101	42-133	2	30			
Benz(a)anthracene	2.59	2.50	104	2.54	2.50	102	48-125	2	30			
Chrysene	2.61	2.50	104	2.56	2.50	102	50-128	2	30			
Benzo(b)fluoranthene	2.72	2.50	109	2.68	2.50	107	49-131	2	30			
Benzo(k)fluoranthene	2.62	2.50	105	2.59	2.50	103	54-131	1	30			
Benzo(a)pyrene	2.81	2.50	112	2.77	2.50	111	43-134	1	30			
Indeno(1,2,3-cd)pyrene	3.14	2.50	125	3.07	2.50	123	45-133	2	30			
Dibenz(a,h)anthracene	2.68	2.50	107	2.70	2.50	108	49-133	1	30			
Benzo(g,h,i)perylene	2.69	2.50	108	2.66	2.50	106	51-124	1	30			

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Extracted: 11/20/2014
Date Analyzed: 12/02/2014
Time Analyzed: 20:30

Method Blank Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	Method Blank	Instrument ID:	MS14
Lab Code:	KWG1415502-3	File ID:	J:\MS14\DATA\120214\1202F028.D
Extraction Method:	EPA 3520C	Level:	Low
Analysis Method:	8270D SIM	Extraction Lot:	KWG1415502

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG1415502-1	J:\MS14\DATA\120214\1202F029.D	12/02/14	20:55
Duplicate Lab Control Sample	KWG1415502-2	J:\MS14\DATA\120214\1202F030.D	12/02/14	21:20
MW-30	K1413049-004	J:\MS14\DATA\120214\1202F032.D	12/02/14	22:10
MW-35	K1413049-009	J:\MS14\DATA\120214\1202F033.D	12/02/14	22:34
MW-36	K1413049-010	J:\MS14\DATA\120214\1202F034.D	12/02/14	22:59
MW-37	K1413049-011	J:\MS14\DATA\120214\1202F035.D	12/02/14	23:24
FIELD BLANK RINSATE	K1413049-019	J:\MS14\DATA\120214\1202F036.D	12/02/14	23:48
MW-3	K1413049-020	J:\MS14\DATA\120214\1202F037.D	12/03/14	00:13
MW-15	K1413049-022	J:\MS14\DATA\120214\1202F038.D	12/03/14	00:37
MW-16	K1413049-023	J:\MS14\DATA\120214\1202F039.D	12/03/14	01:02
MW-17	K1413049-024	J:\MS14\DATA\120214\1202F040.D	12/03/14	01:26
MW-18	K1413049-025	J:\MS14\DATA\120214\1202F041.D	12/03/14	01:50
MW-2	K1413049-026	J:\MS14\DATA\120214\1202F042.D	12/03/14	02:14

QA/QC Report

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington
Sample Matrix: Water

Service Request: K1413049
Date Extracted: 11/20/2014
Date Analyzed: 12/02/2014
Time Analyzed: 20:55

Lab Control Sample Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	Lab Control Sample	Instrument ID:	MS14
Lab Code:	KWG1415502-1	File ID:	J:\MS14\DATA\120214\1202F029.D
Extraction Method:	EPA 3520C	Level:	Low
Analysis Method:	8270D SIM	Extraction Lot:	KWG1415502

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG1415502-3	J:\MS14\DATA\120214\1202F028.D	12/02/14	20:30
MW-30	K1413049-004	J:\MS14\DATA\120214\1202F032.D	12/02/14	22:10
MW-35	K1413049-009	J:\MS14\DATA\120214\1202F033.D	12/02/14	22:34
MW-36	K1413049-010	J:\MS14\DATA\120214\1202F034.D	12/02/14	22:59
MW-37	K1413049-011	J:\MS14\DATA\120214\1202F035.D	12/02/14	23:24
FIELD BLANK RINSATE	K1413049-019	J:\MS14\DATA\120214\1202F036.D	12/02/14	23:48
MW-3	K1413049-020	J:\MS14\DATA\120214\1202F037.D	12/03/14	00:13
MW-15	K1413049-022	J:\MS14\DATA\120214\1202F038.D	12/03/14	00:37
MW-16	K1413049-023	J:\MS14\DATA\120214\1202F039.D	12/03/14	01:02
MW-17	K1413049-024	J:\MS14\DATA\120214\1202F040.D	12/03/14	01:26
MW-18	K1413049-025	J:\MS14\DATA\120214\1202F041.D	12/03/14	01:50
MW-2	K1413049-026	J:\MS14\DATA\120214\1202F042.D	12/03/14	02:14

QA/QC Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington

Service Request: K1413049
Date Analyzed: 12/02/2014
Time Analyzed: 19:38

Tune Summary
Polynuclear Aromatic Hydrocarbons

File ID: J:\MS14\DATA\120214\1202F026.D**Instrument ID:** MS14**Column:** Analysis Method: 8270D SIM

Analysis Lot: KWG1415964

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	25.7	24797	PASS
68	69	0	2	0.0	0	PASS
69	198	0	100	28.0	27065	PASS
70	69	0	2	1.1	304	PASS
127	198	10	80	44.1	42584	PASS
197	198	0	2	0.0	0	PASS
198	442	30	100	42.0	96656	PASS
199	198	5	9	7.6	7325	PASS
275	198	10	60	35.6	34440	PASS
365	442	1	50	2.0	4559	PASS
441	443	0	100	71.5	32227	PASS
442	442	100	100	100.0	229952	PASS
443	442	15	24	19.6	45072	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG1415964-2	J:\MS14\DATA\120214\1202F027.D	12/02/2014	20:05	
Method Blank	KWG1415502-3	J:\MS14\DATA\120214\1202F028.D	12/02/2014	20:30	
Lab Control Sample	KWG1415502-1	J:\MS14\DATA\120214\1202F029.D	12/02/2014	20:55	
Duplicate Lab Control Sample	KWG1415502-2	J:\MS14\DATA\120214\1202F030.D	12/02/2014	21:20	
MW-30	K1413049-004	J:\MS14\DATA\120214\1202F032.D	12/02/2014	22:10	
MW-35	K1413049-009	J:\MS14\DATA\120214\1202F033.D	12/02/2014	22:34	
MW-36	K1413049-010	J:\MS14\DATA\120214\1202F034.D	12/02/2014	22:59	
MW-37	K1413049-011	J:\MS14\DATA\120214\1202F035.D	12/02/2014	23:24	
FIELD BLANK RINSATE	K1413049-019	J:\MS14\DATA\120214\1202F036.D	12/02/2014	23:48	
MW-3	K1413049-020	J:\MS14\DATA\120214\1202F037.D	12/03/2014	00:13	
MW-15	K1413049-022	J:\MS14\DATA\120214\1202F038.D	12/03/2014	00:37	
MW-16	K1413049-023	J:\MS14\DATA\120214\1202F039.D	12/03/2014	01:02	
MW-17	K1413049-024	J:\MS14\DATA\120214\1202F040.D	12/03/2014	01:26	
MW-18	K1413049-025	J:\MS14\DATA\120214\1202F041.D	12/03/2014	01:50	
MW-2	K1413049-026	J:\MS14\DATA\120214\1202F042.D	12/03/2014	02:14	

Results flagged with an asterisk (*) indicate the analysis performed outside specified tune window

QA/QC Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington

Service Request: K1413049
Calibration Date: 12/01/2014

Initial Calibration Summary
Polynuclear Aromatic Hydrocarbons

Calibration ID: CAL13704
Instrument ID: MS14

Column: MS

Level ID	File ID	Level ID	File ID
A	J:\MS14\DATA\120114\1201F011.D	G	J:\MS14\DATA\120114\1201F017.D
B	J:\MS14\DATA\120114\1201F012.D	H	J:\MS14\DATA\120114\1201F018.D
C	J:\MS14\DATA\120114\1201F013.D	I	J:\MS14\DATA\120114\1201F019.D
D	J:\MS14\DATA\120114\1201F014.D	J	J:\MS14\DATA\120114\1201F020.D
E	J:\MS14\DATA\120114\1201F015.D		
F	J:\MS14\DATA\120114\1201F016.D		

Analyte Name	Level			Level			Level			Level			Level		
	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF	ID	Amt	RRF
Naphthalene	A	2.0	0.980	B	4.0	1.08	C	8.0	1.07	D	20	1.12	E	100	1.10
	F	200	1.08	G	400	1.07	H	1000	1.03	I	1600	1.01	J	2000	1.01
2-Methylnaphthalene	A	2.0	0.820	B	4.0	0.827	C	8.0	0.773	D	20	0.795	E	100	0.786
	F	200	0.772	G	400	0.763	H	1000	0.726	I	1600	0.715	J	2000	0.717
Acenaphthylene	A	2.0	2.10	B	4.0	2.12	C	8.0	2.02	D	20	2.09	E	100	2.13
	F	200	2.15	G	400	2.14	H	1000	2.03	I	1600	1.95	J	2000	1.94
Acenaphthene	A	2.0	1.24	B	4.0	1.29	C	8.0	1.22	D	20	1.25	E	100	1.24
	F	200	1.24	G	400	1.24	H	1000	1.18	I	1600	1.15	J	2000	1.15
Fluorene	A	2.0	1.60	B	4.0	1.64	C	8.0	1.57	D	20	1.60	E	100	1.58
	F	200	1.56	G	400	1.54	H	1000	1.45	I	1600	1.41	J	2000	1.41
Phenanthrene	A	2.0	1.18	B	4.0	1.22	C	8.0	1.15	D	20	1.19	E	100	1.17
	F	200	1.16	G	400	1.16	H	1000	1.09	I	1600	1.05	J	2000	1.04
Anthracene	A	2.0	1.14	B	4.0	1.16	C	8.0	1.08	D	20	1.15	E	100	1.17
	F	200	1.17	G	400	1.16	H	1000	1.10	I	1600	1.05	J	2000	1.04
Fluoranthene	A	2.0	1.36	B	4.0	1.37	C	8.0	1.34	D	20	1.38	E	100	1.41
	F	200	1.38	G	400	1.36	H	1000	1.26	I	1600	1.22	J	2000	1.20
Pyrene	A	2.0	1.33	B	4.0	1.34	C	8.0	1.24	D	20	1.28	E	100	1.30
	F	200	1.29	G	400	1.32	H	1000	1.25	I	1600	1.21	J	2000	1.18
Benz(a)anthracene	A	2.0	1.39	B	4.0	1.26	C	8.0	1.15	D	20	1.13	E	100	1.14
	F	200	1.16	G	400	1.19	H	1000	1.16	I	1600	1.13	J	2000	1.12
Chrysene	A	2.0	1.13	B	4.0	1.11	C	8.0	1.07	D	20	1.11	E	100	1.13
	F	200	1.13	G	400	1.15	H	1000	1.12	I	1600	1.10	J	2000	1.09
Benzo(b)fluoranthene	A	2.0	1.31	B	4.0	1.23	C	8.0	1.13	D	20	1.14	E	100	1.19
	F	200	1.20	G	400	1.21	H	1000	1.17	I	1600	1.14	J	2000	1.13
Benzo(k)fluoranthene	A	2.0	1.26	B	4.0	1.19	C	8.0	1.15	D	20	1.17	E	100	1.24
	F	200	1.24	G	400	1.22	H	1000	1.18	I	1600	1.16	J	2000	1.16
Benzo(a)pyrene	A	2.0	0.949	B	4.0	0.966	C	8.0	0.900	D	20	0.929	E	100	0.986
	F	200	1.01	G	400	1.04	H	1000	1.04	I	1600	1.03	J	2000	1.03

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

QA/QC Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington

Service Request: K1413049
 Calibration Date: 12/01/2014

Initial Calibration Summary
Polynuclear Aromatic Hydrocarbons

Calibration ID:	CAL13704												Column:	MS				
Instrument ID:	MS14																	
Analyte Name	Level	ID	Amt	RRF	Level	ID	Amt	RRF	Level	ID	Amt	RRF	Level	ID	Amt	RRF		
Indeno(1,2,3-cd)pyrene	A	2.0	0.860		B	4.0	0.833		C	8.0	0.780		D	20	0.801	E	100	0.883
	F	200	0.912		G	400	0.926		H	1000	0.896		I	1600	0.871	J	2000	0.874
Dibenz(a,h)anthracene	A	2.0	1.15		B	4.0	1.04		C	8.0	1.02		D	20	0.890	E	100	0.953
	F	200	1.00		G	400	1.02		H	1000	0.982		I	1600	0.950	J	2000	0.955
Benzo(g,h,i)perylene	A	2.0	1.17		B	4.0	1.22		C	8.0	1.20		D	20	1.15	E	100	1.17
	F	200	1.18		G	400	1.17		H	1000	1.07		I	1600	1.01	J	2000	1.00
Fluorene-d10	A	2.0	1.25		B	4.0	1.27		C	8.0	1.18		D	20	1.19	E	100	1.20
	F	200	1.20		G	400	1.19		H	1000	1.12		I	1600	1.09	J	2000	1.09
Fluoranthene-d10	A	2.0	1.12		B	4.0	1.15		C	8.0	1.09		D	20	1.12	E	100	1.17
	F	200	1.18		G	400	1.18		H	1000	1.11		I	1600	1.06	J	2000	1.05
Terphenyl-d14	A	2.0	0.933		B	4.0	0.921		C	8.0	0.857		D	20	0.879	E	100	0.883
	F	200	0.879		G	400	0.880		H	1000	0.789		I	1600	0.767	J	2000	0.741

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

QA/QC Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington

Service Request: K1413049
 Calibration Date: 12/01/2014

Initial Calibration Summary
Polynuclear Aromatic Hydrocarbons

Calibration ID: CAL13704
 Instrument ID: MS14

Column: MS

Analyte Name	Compound Type	Calibration Evaluation				RRF Evaluation		
		Fit Type	Eval.	Eval. Result	Q	Control Criteria	Average RRF	Q
Naphthalene	MS	AverageRF	% RSD	4.2		≤20	1.06	0.70
2-Methylnaphthalene	MS	AverageRF	% RSD	5.2		≤20	0.769	0.40
Acenaphthylene	MS	AverageRF	% RSD	3.7		≤20	2.07	0.90
Acenaphthene	MS	AverageRF	% RSD	3.8		≤20	1.22	0.90
Fluorene	MS	AverageRF	% RSD	5.4		≤20	1.54	0.90
Phenanthrene	MS	AverageRF	% RSD	5.4		≤20	1.14	0.70
Anthracene	MS	AverageRF	% RSD	4.5		≤20	1.12	0.70
Fluoranthene	MS	AverageRF	% RSD	5.6		≤20	1.33	0.60
Pyrene	MS	AverageRF	% RSD	4.1		≤20	1.27	0.60
Benz(a)anthracene	MS	AverageRF	% RSD	7.1		≤20	1.18	0.80
Chrysene	MS	AverageRF	% RSD	1.9		≤20	1.11	0.70
Benzo(b)fluoranthene	MS	AverageRF	% RSD	4.9		≤20	1.19	0.70
Benzo(k)fluoranthene	MS	AverageRF	% RSD	3.4		≤20	1.20	0.70
Benzo(a)pyrene	MS	AverageRF	% RSD	5.1		≤20	0.988	0.70
Indeno(1,2,3-cd)pyrene	MS	AverageRF	% RSD	5.4		≤20	0.864	0.50
Dibenz(a,h)anthracene	MS	AverageRF	% RSD	7.1		≤20	0.997	0.40
Benzo(g,h,i)perylene	MS	AverageRF	% RSD	6.9		≤20	1.13	0.50
Fluorene-d10	SURR	AverageRF	% RSD	5.2		≤20	1.18	0.01
Fluoranthene-d10	SURR	AverageRF	% RSD	4.2		≤20	1.12	0.01
Terphenyl-d14	SURR	AverageRF	% RSD	7.6		≤20	0.853	0.01

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

QA/QC Results

Client: JH Baxter & Company
Project: J.H. Baxter-Arlington

Service Request: K1413049
Calibration Date: 12/01/2014
Date Analyzed: 12/01/2014

Second Source Calibration Verification
Polynuclear Aromatic Hydrocarbons

Calibration Type: Internal Standard
Analysis Method: 8270D SIM

Calibration ID: CAL13704
Units: ng/ml

File ID: J:\MS14\DATA\120114\1201F021.D

Analyte Name	Expected	Result	Average	SSV	%D	%Drift	Criteria	Curve Fit
			RF	RF				
Naphthalene	400	410	1.06	1.08	2	NA	± 30 %	AverageRF
2-Methylnaphthalene	400	390	0.769	0.742	-4	NA	± 30 %	AverageRF
Acenaphthylene	400	410	2.07	2.14	4	NA	± 30 %	AverageRF
Acenaphthene	400	390	1.22	1.20	-2	NA	± 30 %	AverageRF
Fluorene	400	390	1.54	1.49	-3	NA	± 30 %	AverageRF
Phenanthrene	400	400	1.14	1.13	-1	NA	± 30 %	AverageRF
Anthracene	400	400	1.12	1.13	1	NA	± 30 %	AverageRF
Fluoranthene	400	390	1.33	1.31	-1	NA	± 30 %	AverageRF
Pyrene	400	390	1.27	1.25	-2	NA	± 30 %	AverageRF
Benz(a)anthracene	400	390	1.18	1.14	-3	NA	± 30 %	AverageRF
Chrysene	400	400	1.11	1.12	1	NA	± 30 %	AverageRF
Benzo(b)fluoranthene	400	390	1.19	1.17	-1	NA	± 30 %	AverageRF
Benzo(k)fluoranthene	400	390	1.20	1.18	-2	NA	± 30 %	AverageRF
Benzo(a)pyrene	400	420	0.988	1.04	5	NA	± 30 %	AverageRF
Indeno(1,2,3-cd)pyrene	400	390	0.864	0.834	-3	NA	± 30 %	AverageRF
Dibenz(a,h)anthracene	400	360	0.997	0.902	-10	NA	± 30 %	AverageRF
Benzo(g,h,i)perylene	400	370	1.13	1.05	-7	NA	± 30 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

QA/QC Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington

Service Request: K1413049
 Date Analyzed: 12/02/2014

Continuing Calibration Verification Summary
Polynuclear Aromatic Hydrocarbons

Calibration Type: Internal Standard
 Analysis Method: 8270D SIM

Calibration Date: 12/01/2014
 Calibration ID: CAL13704
 Analysis Lot: KWG1415964
 Units: ng/ml

File ID: J:\MS14\DATA\120214\1202F027.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Naphthalene	400	430	0.70	1.06	1.14	8	NA	± 20	AverageRF
2-Methylnaphthalene	400	430	0.40	0.769	0.819	6	NA	± 20	AverageRF
Acenaphthylene	400	440	0.90	2.07	2.30	11	NA	± 20	AverageRF
Acenaphthene	400	420	0.90	1.22	1.29	5	NA	± 20	AverageRF
Fluorene	400	420	0.90	1.54	1.60	4	NA	± 20	AverageRF
Phenanthrene	400	410	0.70	1.14	1.18	4	NA	± 20	AverageRF
Anthracene	400	420	0.70	1.12	1.19	6	NA	± 20	AverageRF
Fluoranthene	400	410	0.60	1.33	1.38	4	NA	± 20	AverageRF
Pyrene	400	410	0.60	1.27	1.31	3	NA	± 20	AverageRF
Benz(a)anthracene	400	420	0.80	1.18	1.24	4	NA	± 20	AverageRF
Chrysene	400	400	0.70	1.11	1.13	1	NA	± 20	AverageRF
Benzo(b)fluoranthene	400	420	0.70	1.19	1.25	5	NA	± 20	AverageRF
Benzo(k)fluoranthene	400	410	0.70	1.20	1.22	2	NA	± 20	AverageRF
Benzo(a)pyrene	400	450	0.70	0.988	1.11	12	NA	± 20	AverageRF
Indeno(1,2,3-cd)pyrene	400	500	0.50	0.864	1.08	25 *	NA	± 20	AverageRF
Dibenz(a,h)anthracene	400	430	0.40	0.997	1.06	6	NA	± 20	AverageRF
Benzo(g,h,i)perylene	400	420	0.50	1.13	1.19	5	NA	± 20	AverageRF
Fluorene-d10	400	430	0.01	1.18	1.27	8	NA	± 20	AverageRF
Fluoranthene-d10	400	450	0.01	1.12	1.27	13	NA	± 20	AverageRF
Terphenyl-d14	400	440	0.01	0.853	0.941	10	NA	± 20	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

QA/QC Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington

Service Request: K1413049

Analysis Run Log
Polynuclear Aromatic Hydrocarbons

Analysis Method: 8270D SIM

Analysis Lot: KWG1415964
 Instrument ID: MS14

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
1202F026.D	GC/MS Tuning - Decafluorotriphenylphosphine	KWG1415964-1	12/2/2014	19:38		12/2/2014	19:58
1202F027.D	Continuing Calibration Verification	KWG1415964-2	12/2/2014	20:05		12/2/2014	20:23
1202F028.D	Method Blank	KWG1415502-3	12/2/2014	20:30		12/2/2014	20:48
1202F029.D	Lab Control Sample	KWG1415502-1	12/2/2014	20:55		12/2/2014	21:13
1202F030.D	Duplicate Lab Control Sample	KWG1415502-2	12/2/2014	21:20		12/2/2014	21:38
1202F031.D	ZZZZZZ	ZZZZZZ	12/2/2014	21:45		12/2/2014	22:03
1202F032.D	MW-30	K1413049-004	12/2/2014	22:10		12/2/2014	22:28
1202F033.D	MW-35	K1413049-009	12/2/2014	22:34		12/2/2014	22:52
1202F034.D	MW-36	K1413049-010	12/2/2014	22:59		12/2/2014	23:17
1202F035.D	MW-37	K1413049-011	12/2/2014	23:24		12/2/2014	23:42
1202F036.D	FIELD BLANK RINSATE	K1413049-019	12/2/2014	23:48		12/3/2014	00:06
1202F037.D	MW-3	K1413049-020	12/3/2014	00:13		12/3/2014	00:31
1202F038.D	MW-15	K1413049-022	12/3/2014	00:37		12/3/2014	00:55
1202F039.D	MW-16	K1413049-023	12/3/2014	01:02		12/3/2014	01:20
1202F040.D	MW-17	K1413049-024	12/3/2014	01:26		12/3/2014	01:44
1202F041.D	MW-18	K1413049-025	12/3/2014	01:50		12/3/2014	02:08
1202F042.D	MW-2	K1413049-026	12/3/2014	02:14		12/3/2014	02:32
1202F044.D	ZZZZZZ	ZZZZZZ	12/3/2014	03:02		12/3/2014	03:20
1202F045.D	ZZZZZZ	ZZZZZZ	12/3/2014	03:26		12/3/2014	03:44
1202F046.D	ZZZZZZ	ZZZZZZ	12/3/2014	03:51		12/3/2014	04:09
1202F047.D	ZZZZZZ	ZZZZZZ	12/3/2014	04:15		12/3/2014	04:33
1202F048.D	ZZZZZZ	ZZZZZZ	12/3/2014	04:39		12/3/2014	04:57
1202F049.D	ZZZZZZ	ZZZZZZ	12/3/2014	05:03		12/3/2014	05:21
1202F050.D	ZZZZZZ	ZZZZZZ	12/3/2014	05:28		12/3/2014	05:46
1202F051.D	ZZZZZZ	ZZZZZZ	12/3/2014	05:52		12/3/2014	06:10
1202F052.D	ZZZZZZ	ZZZZZZ	12/3/2014	06:17		12/3/2014	06:35
1202F053.D	ZZZZZZ	ZZZZZZ	12/3/2014	06:42		12/3/2014	07:00
1202F054.D	ZZZZZZ	ZZZZZZ	12/3/2014	07:06		12/3/2014	07:24
1202F055.D	ZZZZZZ	ZZZZZZ	12/3/2014	07:31		12/3/2014	07:49

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

QA/QC Results

Client: JH Baxter & Company
 Project: J.H. Baxter-Arlington
 Sample Matrix: Water

Service Request: K1413049
 Date Extracted: 11/20/2014

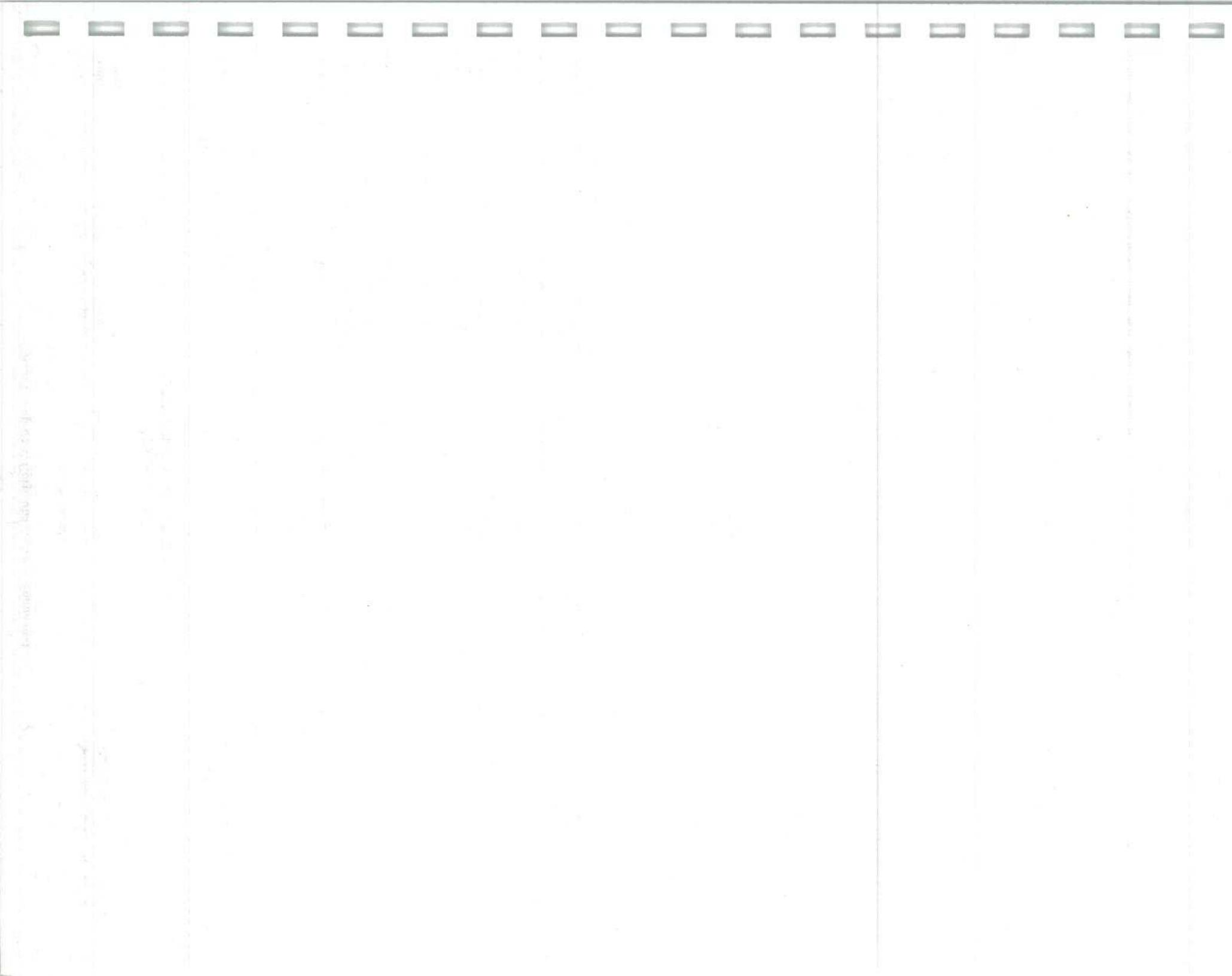
Extraction Prep Log
Polynuclear Aromatic Hydrocarbons

Extraction Method: EPA 3520C
 Analysis Method: 8270D SIM

Extraction Lot: KWG1415502
 Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
MW-30	K1413049-004	11/17/14	11/19/14	1060ml	5ml	NA	
MW-35	K1413049-009	11/16/14	11/19/14	1060ml	5ml	NA	
MW-36	K1413049-010	11/17/14	11/19/14	1060ml	5ml	NA	
MW-37	K1413049-011	11/17/14	11/19/14	1060ml	5ml	NA	
FIELD BLANK RINSATE	K1413049-019	11/17/14	11/19/14	1020ml	5ml	NA	
MW-3	K1413049-020	11/16/14	11/19/14	1020ml	5ml	NA	
MW-15	K1413049-022	11/17/14	11/19/14	1060ml	5ml	NA	
MW-16	K1413049-023	11/17/14	11/19/14	1060ml	5ml	NA	
MW-17	K1413049-024	11/17/14	11/19/14	1060ml	5ml	NA	
MW-18	K1413049-025	11/17/14	11/19/14	1060ml	5ml	NA	
MW-2	K1413049-026	11/16/14	11/19/14	1020ml	5ml	NA	
Method Blank	KWG1415502-3	NA	NA	1060ml	5ml	NA	
Lab Control Sample	KWG1415502-1	NA	NA	1000ml	5ml	NA	
Duplicate Lab Control Sample	KWG1415502-2	NA	NA	1000ml	5ml	NA	

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis





ALS Environmental
ALS Group USA, Corp
1317 South 13th Avenue
Kelso, WA 98626
T: 1-360-577-7222
F: 1-360-636-1068
www.alsglobal.com

January 07, 2015

Analytical Report for Service Request No: K1413047

Scott Thielke
JH Baxter & Company
85 N. Baxter Road
P.O. Box 10797
Eugene, OR 97440

RE: JH Baxter - Arlington

Dear Scott:

Enclosed are the results of the sample(s) submitted to our laboratory on November 19, 2014. For your reference, these analyses have been assigned our service request number **K1413047**.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3363. You may also contact me via email at Lisa.Domenighini@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

A handwritten signature in cursive ink, appearing to read "Lisa Domenighini".

Lisa Domenighini
Project Manager

Page 1 of 306



Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEC UST	http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L14-51
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	Not available	-
Idaho DHW	http://www.healthandwelfare.idaho.gov/Health/Labs/CertificationDrinkingWaterLabs/tabid/1833/Default.aspx	-
ISO 17025	http://www.pjlabs.com/	L14-50
Louisiana DEQ	http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx	03016
Maine DHS	Not available	WA01276
Michigan DEQ	http://www.michigan.gov/deq/0,1607,7-135-3307_4131_4156---,00.html	9949
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Montana DPHHS	http://www.dphhs.mt.gov/publichealth/	CERT0047
Nevada DEP	http://ndep.nv.gov/bsdw/lbservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/oqa/	WA005
North Carolina DWQ	http://www.dwqlab.org/	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/envserv/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wisconsin DNR	http://dnr.wi.gov/	998386840
Wyoming (EPA Region 8)	http://www.epa.gov/region8/water/dwhome/wyomingdi.html	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.alsglobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.



ALS Environmental

Case Narrative

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577- 7222 Fax (360)636- 1068
www.alsglobal.com

ALS ENVIRONMENTAL

Client: JH Baxter & Company **Service Request No.:** K1413047
Project: J.H. Baxter - Arlington **Date Received:** 11/19/14
Sample Matrix: Water

Case Narrative

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV validation deliverables including summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Two water samples were received for analysis at ALS Environmental on 11/19/14. As instructed, the discreet samples were composited at the laboratory to create one composite sample: EW-2-4 Composite. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Chlorinated Phenols by EPA Method 8151

Matrix Spike Recovery Exceptions:

The control criteria for matrix spike recovery of Pentachlorophenol for sample EW-2-4-Composite were not applicable. The analyte concentration in the sample was significantly higher than the added spike concentration, preventing accurate evaluation of the spike recovery.

Elevated Detection Limits:

Sample required dilution due to the presence of elevated levels of target analyte. The reporting limits were adjusted to reflect the dilution.

Calibration Verification Exceptions:

The analysis of Chlorinated Phenols requires the use of dual column confirmation. When the Continuing Calibration Verification (CCV) criterion is met for both columns, the lower of the two sample results is generally reported. The primary evaluation criteria were not met on the confirmation column for a couple of analytes in CCV 1202003 and 1202010. The results were reported from the column with an acceptable CCV. The data quality was not affected. No further corrective action was necessary.

Lab Control Sample Exceptions:

The recovery of Total Tetrachlorophenols in the Lab Control Sample was outside the control limits listed in the results summary. The limits are default values temporarily in use until sufficient data points are generated to calculate statistical control limits. Based on the method and historic data, the recoveries observed were in the range expected for this procedure. Total Tetrachlorophenols are not used to control the methods. It is noted that 2,3,5,6-Tetrachlorophenol cannot be separated from 2,3,4,6-Tetrachlorophenol. The individual tetrachlorophenols are used to control the analysis. See below for recoveries of the individual tetrachlorophenols. No further corrective action was taken.

2,3,4,5-Tetrachlorophenol 69% Limits=32-89
2,3,5,6-Tetrachlorophenol 65% Limits=37-94

No other anomalies associated with the analysis of these samples were observed.

Approved by Lisa A. Domenighini



ALS Environmental

Chain of Custody

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577- 7222 Fax (360)636- 1068
www.alsglobal.com

PC LISA

Cooler Receipt and Preservation Form

Client / Project:

JH Bayne

Service Request K14

13047

Received: 11/19/14 Opened: 11/19/14 By: A Unloaded: 11/19/14 By: A1. Samples were received via? Mail FedEx UPS DHL PDX Courier Hand Delivered2. Samples were received in: (circle) Cooler Box Envelope Other NA3. Were custody seals on coolers? NA Y N If yes, how many and where? 1 FRONTIf present, were custody seals intact? Y N If present, were they signed and dated? N

Raw Cooler Temp	Corrected, Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID	Tracking Number	NA	Filed
1.9	2.1	2.6	2.8	0.2	327	NA	547897374990		
3.5	3.6	4.5	4.6	0.1	340	NA	577897393642		
2.4	2.4	N/P	—	—	357	NA	547897393620		
4.3	4.2	N/P	—	-0.1	298	NA	547897393594		

4. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves

5. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
6. Did all bottles arrive in good condition (unbroken)? Indicate in the table below. NA Y N
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
8. Did all sample labels and tags agree with custody papers? Indicate major discrepancies in the table on page 2. NA Y N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
10. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below. NA Y N
11. Were VOA vials received without headspace? Indicate in the table below. NA Y N
12. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head- space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions:



ALS Environmental

Chlorinated Phenols

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577- 7222 Fax (360)636- 1068
www.alsglobal.com

Client: JH Baxter & Company Service Request: K1413047
Project: JH Baxter - Arlington

Cover Page - Organic Analysis Data Package
Chlorinated Phenols

Sample Name	Lab Code	Date Collected	Date Received
EW-2-4 Composite	K1413047-003	11/17/2014	11/19/2014
EW-2-4 CompositeMS	KWG1415698-1	11/17/2014	11/19/2014
EW-2-4 CompositeDMS	KWG1415698-2	11/17/2014	11/19/2014

Analytical Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington
 Sample Matrix: Water

Service Request: K1413047
 Date Collected: 11/17/2014
 Date Received: 11/19/2014

Chlorinated Phenols

Sample Name: EW-2-4 Composite Units: ug/L
 Lab Code: K1413047-003 Basis: NA
 Extraction Method: Method Level: Low
 Analysis Method: 8151M

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2,4,6-Trichlorophenol	ND	U	0.50	0.14	1	11/20/14	11/28/14	KWG1415698	
2,4,5-Trichlorophenol	ND	U	1.0	0.19	1	11/20/14	11/28/14	KWG1415698	
Tetrachlorophenols, Total	27	i	1.0	0.45	1	11/20/14	11/28/14	KWG1415698	
Pentachlorophenol	590	D	2.5	0.80	5	11/20/14	12/02/14	KWG1415698	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	103	33-114	11/28/14	Acceptable

Comments:

Analytical Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington
 Sample Matrix: Water

Service Request: K1413047
 Date Collected: NA
 Date Received: NA

Chlorinated Phenols

Sample Name:	Method Blank	Units:	ug/L
Lab Code:	KWG1415698-4	Basis:	NA
Extraction Method:	Method Mod	Level:	Low
Analysis Method:	8151M		

Analyte Name	Result Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
2,4,6-Trichlorophenol	ND U	0.50	0.14	1	11/20/14	11/28/14	KWG1415698	
2,4,5-Trichlorophenol	0.26 JP	1.0	0.19	1	11/20/14	11/28/14	KWG1415698	
Tetrachlorophenols, Total	ND U	1.0	0.25	1	11/20/14	11/28/14	KWG1415698	
Pentachlorophenol	ND U	0.50	0.16	1	11/20/14	11/28/14	KWG1415698	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
4-Bromo-2,6-dichlorophenol	89	33-114	11/28/14	Acceptable

Comments: _____

Service Request: K1413047

Client: JH Baxter & Company
Project: JH Baxter - Arlington
Sample Matrix: Water

Surrogate Recovery Summary Chlorinated Phenols

Extraction Method: Method **Analysis Method:** 8151M **Units:** Percent **Level:** Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur</u>
EW-2-4 Composite	K1413047-003	103
Method Blank	KWG1415698-4	89
EW-2-4 CompositeMS	KWG1415698-1	101
EW-2-4 CompositeDMS	KWG1415698-2	83
Lab Control Sample	KWG1415698-3	98

Surrogate Recovery Control Limits (%)

Surf = 4-Bromo-2,6-dichlorophenol 33-114

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

QA/QC Report

Client: JH Baxter & Company
Project: JH Baxter - Arlington
Sample Matrix: Water

Service Request: K1413047
Date Extracted: 11/20/2014
Date Analyzed: 11/28/2014

Matrix Spike/Duplicate Matrix Spike Summary
Chlorinated Phenols

Sample Name:	EW-2-4 Composite	Units:	ug/L
Lab Code:	K1413047-003	Basis:	NA
Extraction Method:	Method Mod	Level:	Low
Analysis Method:	8151M	Extraction Lot:	KWG1415698

Analyte Name	Sample Result	EW-2-4 CompositeMS			EW-2-4 CompositeDMS			%Rec Limits	RPD	RPD Limit			
		KWG1415698-1			KWG1415698-2								
		Matrix Spike			Duplicate Matrix Spike								
Analyte Name	Sample Result	Result	Spike Amount	%Rec	Result	Spike Amount	%Rec						
2,4,6-Trichlorophenol	ND	6.57	10.0	66	5.99	10.0	60	26-100	9	30			
2,4,5-Trichlorophenol	ND	7.41	10.0	74	6.58	10.0	66	10-103	12	30			
Tetrachlorophenols, Total	27	42.3	20.0	75	38.1	20.0	54 *	70-130	11	30			
Pentachlorophenol	590	388E	10.0	-2031 #	364E	10.0	-2267 #	40-106	6	30			

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: JH Baxter & Company
 Project: JH Baxter - Arlington
 Sample Matrix: Water

Service Request: K1413047
 Date Extracted: 11/20/2014
 Date Analyzed: 11/28/2014

Lab Control Spike Summary
Chlorinated Phenols

Extraction Method: Method Mod Units: ug/L
 Analysis Method: 8151M Basis: NA
 Level: Low
 Extraction Lot: KWG1415698

Lab Control Sample
 KWG1415698-3
 Lab Control Spike

Analyte Name	Result	Spike Amount	%Rec	%Rec Limits
2,4,6-Trichlorophenol	6.22	10.0	62	30-86
2,4,5-Trichlorophenol	6.05	10.0	60	19-94
Tetrachlorophenols, Total	13.6	20.0	68 *	70-130
Pentachlorophenol	7.20	10.0	72	44-106

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client: JH Baxter & Company
Project: JH Baxter - Arlington
Sample Matrix: Water

Service Request: K1413047
Date Extracted: 11/20/2014
Date Analyzed: 11/28/2014
Time Analyzed: 21:27

Method Blank Summary
Chlorinated Phenols

Sample Name: Method Blank
Lab Code: KWG1415698-4
Extraction Method: Method Mod
Analysis Method: 8151M

Instrument ID: GC36
File ID: J:\GC36\DATA\112814P\1128000051.D
Level: Low
Extraction Lot: KWG1415698

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
EW-2-4 Composite	K1413047-003	J:\GC36\DATA\112814P\1128000030.D	11/28/14	16:48
EW-2-4 CompositeMS	KWG1415698-1	J:\GC36\DATA\112814P\1128000031.D	11/28/14	17:01
EW-2-4 CompositeDMS	KWG1415698-2	J:\GC36\DATA\112814P\1128000032.D	11/28/14	17:15
Lab Control Sample	KWG1415698-3	J:\GC36\DATA\112814P\1128000050.D	11/28/14	21:14
EW-2-4 Composite	K1413047-003	J:\GC36\DATA\120214P\1202000007.D	12/02/14	12:20

QA/QC Report

Client: JH Baxter & Company
Project: JH Baxter - Arlington
Sample Matrix: Water

Service Request: K1413047
Date Extracted: 11/20/2014
Date Analyzed: 11/28/2014
Time Analyzed: 21:14

Lab Control Sample Summary
Chlorinated Phenols

Sample Name:	Lab Control Sample	Instrument ID:	GC36
Lab Code:	KWG1415698-3	File ID:	J:\GC36\DATA\112814P\1128000050.D
Extraction Method:	Method Mod	Level:	Low
Analysis Method:	8151M	Extraction Lot:	KWG1415698

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
EW-2-4 Composite	K1413047-003	J:\GC36\DATA\112814P\1128000030.D	11/28/14	16:48
EW-2-4 CompositeMS	KWG1415698-1	J:\GC36\DATA\112814P\1128000031.D	11/28/14	17:01
EW-2-4 CompositeDMS	KWG1415698-2	J:\GC36\DATA\112814P\1128000032.D	11/28/14	17:15
Method Blank	KWG1415698-4	J:\GC36\DATA\112814P\1128000051.D	11/28/14	21:27
EW-2-4 Composite	K1413047-003	J:\GC36\DATA\120214P\120200007.D	12/02/14	12:20

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413047
 Calibration Date: 11/27/2014

Initial Calibration Summary
Chlorinated Phenols

Calibration ID: CAL13703

Column: RTX-CLP

Instrument ID: GC36

Level ID	File ID	Level ID	File ID
A	J:\GC36\DATA\112714P\11270000502.D	G	J:\GC36\DATA\112714P\11270000508.D
B	J:\GC36\DATA\112714P\11270000503.D	H	J:\GC36\DATA\112714P\11270000509.D
C	J:\GC36\DATA\112714P\11270000504.D	I	J:\GC36\DATA\112714P\11270000510.D
D	J:\GC36\DATA\112714P\11270000505.D	J	J:\GC36\DATA\112714P\11270000511.D
E	J:\GC36\DATA\112714P\11270000506.D		
F	J:\GC36\DATA\112714P\11270000507.D		

Analyte Name	Level			Level			Level			Level			Level		
	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF
4-Bromo-2,6-dichlorophenol				B	2.5	2.64E+5	C	5.0	2.64E+5	D	10	2.52E+5	E	25	2.43E+5
	F	50	2.37E+5	G	100	2.83E+5	H	250	2.79E+5	I	500	2.82E+5			
2,4,6-Trichlorophenol	A	0.93	2.98E+5	B	2.3	3.16E+5	C	4.7	3.09E+5	D	9.3	2.90E+5	E	23	2.67E+5
	F	47	2.47E+5	G	93	2.83E+5	H	230	2.81E+5	I	470	2.74E+5	J	930	2.85E+5
2,4,5-Trichlorophenol	A	0.93	1.31E+5	B	2.3	1.29E+5	C	4.7	1.37E+5	D	9.3	1.58E+5	E	23	1.40E+5
	F	47	1.25E+5	G	93	1.30E+5	H	230	1.16E+5	I	470	1.11E+5	J	930	1.11E+5
2,3,4,5-Tetrachlorophenol	A	0.94	2.88E+5	B	2.4	2.93E+5	C	4.7	2.98E+5	D	9.4	2.75E+5	E	24	2.47E+5
	F	47	2.35E+5	G	94	2.40E+5	H	240	2.21E+5	I	470	2.24E+5	J	940	2.24E+5
2,3,5,6-Tetrachlorophenol	A	0.94	3.41E+5	B	2.4	3.60E+5	C	4.7	4.36E+5	D	9.4	4.03E+5	E	24	3.69E+5
	F	47	3.51E+5	G	94	3.83E+5	H	240	3.63E+5	I	470	3.61E+5	J	940	3.68E+5
Pentachlorophenol	A	0.95	7.19E+5	B	2.4	5.90E+5	C	4.8	5.02E+5	D	9.5	4.79E+5	E	24	4.01E+5
	F	48	3.80E+5	G	95	3.94E+5	H	240	3.60E+5	I	480	3.64E+5	J	950	3.67E+5

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413047
 Calibration Date: 11/27/2014

Initial Calibration Summary
Chlorinated Phenols

Calibration ID: CAL13703
 Instrument ID: GC36

Column: RTX-CLP

Analyte Name	Compound Type	Calibration Evaluation				
		Fit Type	Eval.	Eval. Result	Q	Control Criteria
4-Bromo-2,6-dichlorophenol	SURR	Quadratic	COD	0.998		≥ 0.99
2,4,6-Trichlorophenol	MS	Linear(0,0)	R2	1.000		≥ 0.99
2,4,5-Trichlorophenol	MS	Quadratic(0,0)	COD	0.999		≥ 0.99
2,3,4,5-Tetrachlorophenol	MS	Linear(0,0)	R2	1.000		≥ 0.99
2,3,5,6-Tetrachlorophenol	MS	AverageRF	% RSD	7.5		≤ 20
Pentachlorophenol	MS	Quadratic	COD	1.000		≥ 0.99

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413047
 Calibration Date: 11/27/2014
 Date Analyzed: 11/27/2014

Second Source Calibration Verification
Chlorinated Phenols

Calibration Type: External Standard
 Analysis Method: 8151M

Calibration ID: CAL13703
 Units: ug/L

File ID: J:\GC36\DATA\112714P\11270000512.D

Column ID: RTX-CLP

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
2,4,6-Trichlorophenol	470	450	285000	274000	NA	-3	$\pm 20\%$	Linear(0,0)
2,4,5-Trichlorophenol	470	420	129000	105000	NA	-10	$\pm 20\%$	Quadratic(0,0)
2,3,4,5-Tetrachlorophenol	470	470	255000	222000	NA	-1	$\pm 20\%$	Linear(0,0)
2,3,5,6-Tetrachlorophenol	470	460	374000	368000	-1	NA	$\pm 20\%$	AverageRF
Pentachlorophenol	480	480	456000	371000	NA	1	$\pm 20\%$	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413047
 Calibration Date: 11/27/2014

Initial Calibration Summary
Chlorinated Phenols

Calibration ID: CAL13703
 Instrument ID: GC36

Column: RTX-CLP2

Level ID	File ID	Level ID	File ID
A	J:\GC36\DATA\112714P\11270000502.D\11270000502.c.d	G	J:\GC36\DATA\112714P\11270000508.D\11270000508.c.d
B	J:\GC36\DATA\112714P\11270000503.D\11270000503.c.d	H	J:\GC36\DATA\112714P\11270000509.D\11270000509.c.d
C	J:\GC36\DATA\112714P\11270000504.D\11270000504.c.d	I	J:\GC36\DATA\112714P\11270000510.D\11270000510.c.d
D	J:\GC36\DATA\112714P\11270000505.D\11270000505.c.d	J	J:\GC36\DATA\112714P\11270000511.D\11270000511.c.d
E	J:\GC36\DATA\112714P\11270000506.D\11270000506.c.d		
F	J:\GC36\DATA\112714P\11270000507.D\11270000507.c.d		

Analyte Name	Level			Level			Level			Level			Level		
	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF	ID	Amt	RF
4-Bromo-2,6-dichlorophenol				B	2.5	4.09E+5	C	5.0	4.30E+5	D	10	4.50E+5	E	25	5.00E+5
	F	50	5.23E+5	G	100	6.50E+5	H	250	6.59E+5	I	500	6.75E+5			
2,4,6-Trichlorophenol	A	0.93	5.65E+5	B	2.3	6.19E+5	C	4.7	6.60E+5	D	9.3	6.88E+5	E	23	6.46E+5
	F	47	6.19E+5	G	93	7.20E+5	H	230	6.89E+5	I	470	6.84E+5	J	930	7.20E+5
2,4,5-Trichlorophenol	A	0.93	2.76E+5	B	2.3	2.74E+5	C	4.7	2.75E+5	D	9.3	3.37E+5	E	23	3.05E+5
	F	47	2.84E+5	G	93	2.94E+5	H	230	2.73E+5	I	470	2.73E+5	J	930	2.72E+5
2,3,4,5-Tetrachlorophenol	A	0.94	6.57E+5	B	2.4	6.17E+5	C	4.7	6.10E+5	D	9.4	5.64E+5	E	24	5.21E+5
	F	47	4.91E+5	G	94	5.31E+5	H	240	5.05E+5	I	470	5.18E+5	J	940	5.35E+5
2,3,5,6-Tetrachlorophenol	A	0.94	7.64E+5	B	2.4	8.66E+5	C	4.7	9.31E+5	D	9.4	8.05E+5	E	24	7.82E+5
	F	47	7.74E+5	G	94	8.89E+5	H	240	8.60E+5	I	470	8.76E+5	J	940	9.13E+5
Pentachlorophenol	A	0.95	1.90E+6	B	2.4	1.38E+6	C	4.8	1.31E+6	D	9.5	1.07E+6	E	24	8.87E+5
	F	48	8.25E+5	G	95	8.83E+5	H	240	8.38E+5	I	480	8.63E+5	J	950	8.93E+5

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413047
 Calibration Date: 11/27/2014

Initial Calibration Summary
Chlorinated Phenols

Calibration ID: CAL13703
 Instrument ID: GC36

Column: RTX-CLP2

Analyte Name	Compound Type	Calibration Evaluation				
		Fit Type	Eval.	Eval. Result	Q	Control Criteria
4-Bromo-2,6-dichlorophenol	SURR	Quadratic	COD	0.995	≥ 0.99	
2,4,6-Trichlorophenol	MS	AverageRF	% RSD	7.5	≤ 20	
2,4,5-Trichlorophenol	MS	AverageRF	% RSD	7.3	≤ 20	
2,3,4,5-Tetrachlorophenol	MS	AverageRF	% RSD	10.0	≤ 20	
2,3,5,6-Tetrachlorophenol	MS	AverageRF	% RSD	7.1	≤ 20	
Pentachlorophenol	MS	Quadratic	COD	1.000	≥ 0.99	

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413047
 Calibration Date: 11/27/2014
 Date Analyzed: 11/27/2014

Second Source Calibration Verification
Chlorinated Phenols

Calibration Type: External Standard

Calibration ID: CAL13703

Analysis Method: 8151M

Units: ug/L

File ID: J:\GC36\DATA\112714P\1127000512.D\1127000512c.d

Column ID: RTX-CLP2

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
2,4,6-Trichlorophenol	470	480	661000	681000	3	NA	± 20 %	AverageRF
2,4,5-Trichlorophenol	470	430	286000	266000	-7	NA	± 20 %	AverageRF
2,3,4,5-Tetrachlorophenol	470	440	555000	512000	-8	NA	± 20 %	AverageRF
2,3,5,6-Tetrachlorophenol	470	500	846000	890000	5	NA	± 20 %	AverageRF
Pentachlorophenol	480	490	1080000	884000	NA	2	± 20 %	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound

‡ CCC Compound

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413047
 Date Analyzed: 11/28/2014

Continuing Calibration Verification Summary
Chlorinated Phenols

Calibration Type:	External Standard	Calibration Date:	11/27/2014
Analysis Method:	8151M	Calibration ID:	CAL13703
		Analysis Lot:	KWG1415840
		Units:	ug/L

File ID: J:\GC36\DATA\112814P\1128000023.D Column ID: RTX-CLP

Analyte Name	Expected	Result	Average		%D	%Drift	Criteria	Curve Fit
			RF	CCV RF				
4-Bromo-2,6-dichlorophenol	500	530	263000	309000	NA	6	± 20	Quadratic
2,4,6-Trichlorophenol	470	480	285000	290000	NA	2	± 20	Linear(0,0)
2,4,5-Trichlorophenol	470	460	129000	114000	NA	-2	± 20	Quadratic(0,0)
2,3,4,5-Tetrachlorophenol	470	460	255000	221000	NA	-2	± 20	Linear(0,0)
2,3,5,6-Tetrachlorophenol	470	470	374000	370000	-1	NA	± 20	AverageRF
Pentachlorophenol	480	470	456000	365000	NA	-1	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1413047
Date Analyzed: 11/28/2014

Continuing Calibration Verification Summary
Chlorinated Phenols

Calibration Type:	External Standard	Calibration Date:	11/27/2014
Analysis Method:	8151M	Calibration ID:	CAL13703
File ID:	J:\GC36\DATA\112814P\112800023.D\112800023.C.	Analysis Lot:	KWG1415840
		Units:	ug/L
		Column ID:	RTX-CLP2

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	500	520	537000	743000	NA	4	± 20	Quadratic
2,4,6-Trichlorophenol	470	520	661000	737000	12	NA	± 20	AverageRF
2,4,5-Trichlorophenol	470	460	286000	283000	-1	NA	± 20	AverageRF
2,3,4,5-Tetrachlorophenol	470	430	555000	508000	-8	NA	± 20	AverageRF
2,3,5,6-Tetrachlorophenol	470	510	846000	911000	8	NA	± 20	AverageRF
Pentachlorophenol	480	490	1080000	895000	NA	3	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413047
 Date Analyzed: 11/28/2014

Continuing Calibration Verification Summary
Chlorinated Phenols

Calibration Type: External Standard
 Analysis Method: 8151M

Calibration Date: 11/27/2014
 Calibration ID: CAL13703
 Analysis Lot: KWG1415840
 Units: ug/L

File ID: J:\GC36\DATA\112814P\1128000035.D

Column ID: RTX-CLP

Analyte Name	Expected	Result	Average	CCV	%D	%Drift	Criteria	Curve Fit
			RF	RF				
4-Bromo-2,6-dichlorophenol	500	520	263000	304000	NA	4	± 20	Quadratic
2,4,6-Trichlorophenol	470	470	285000	285000	NA	1	± 20	Linear(0,0)
2,4,5-Trichlorophenol	470	460	129000	114000	NA	-2	± 20	Quadratic(0,0)
2,3,4,5-Tetrachlorophenol	470	470	255000	224000	NA	0	± 20	Linear(0,0)
2,3,5,6-Tetrachlorophenol	470	470	374000	369000	-1	NA	± 20	AverageRF
Pentachlorophenol	480	470	456000	366000	NA	-1	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1413047
Date Analyzed: 11/28/2014

Continuing Calibration Verification Summary
Chlorinated Phenols

Calibration Type:	External Standard	Calibration Date:	11/27/2014
Analysis Method:	8151M	Calibration ID:	CAL13703
		Analysis Lot:	KWG1415840
		Units:	ug/L

File ID: J:\GC36\DATA\112814P\112800035.D\112800035.C

Column ID: RTX-CLP2

Analyte Name	Expected	Result	Average		CCV	%D	%Drift	Criteria	Curve Fit
			RF	RF					
4-Bromo-2,6-dichlorophenol	500	520	537000	743000	NA	4	± 20	Quadratic	
2,4,6-Trichlorophenol	470	520	661000	736000	11	NA	± 20	AverageRF	
2,4,5-Trichlorophenol	470	460	286000	283000	-1	NA	± 20	AverageRF	
2,3,4,5-Tetrachlorophenol	470	450	555000	534000	-4	NA	± 20	AverageRF	
2,3,5,6-Tetrachlorophenol	470	510	846000	919000	9	NA	± 20	AverageRF	
Pentachlorophenol	480	490	1080000	891000	NA	3	± 20	Quadratic	

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413047
 Date Analyzed: 11/28/2014

Continuing Calibration Verification Summary
Chlorinated Phenols

Calibration Type: External Standard
 Analysis Method: 8151M

Calibration Date: 11/27/2014
 Calibration ID: CAL13703
 Analysis Lot: KWG1415840
 Units: ug/L

File ID: J:\GC36\DATA\112814P\1128000047.D

Column ID: RTX-CLP

Analyte Name	Expected	Result	Average	CCV	%D	%Drift	Criteria	Curve Fit
			RF	RF				
4-Bromo-2,6-dichlorophenol	500	510	263000	298000	NA	3	± 20	Quadratic
2,4,6-Trichlorophenol	470	470	285000	283000	NA	0	± 20	Linear(0,0)
2,4,5-Trichlorophenol	470	450	129000	112000	NA	-4	± 20	Quadratic(0,0)
2,3,4,5-Tetrachlorophenol	470	460	255000	217000	NA	-3	± 20	Linear(0,0)
2,3,5,6-Tetrachlorophenol	470	460	374000	362000	-3	NA	± 20	AverageRF
Pentachlorophenol	480	460	456000	356000	NA	-3	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1413047
Date Analyzed: 11/28/2014

Continuing Calibration Verification Summary
Chlorinated Phenols

Calibration Type:	External Standard	Calibration Date:	11/27/2014
Analysis Method:	8151M	Calibration ID:	CAL13703
		Analysis Lot:	KWG1415840
		Units:	ug/L

File ID: J:\GC36\DATA\112814P\1128000047.D\1128000047.C. **Column ID:** RTX-CLP2

Analyte Name	Expected	Result	Average		CCV	%D	%Drift	Criteria	Curve Fit
			RF	RF					
4-Bromo-2,6-dichlorophenol	500	510	537000	730000	NA	2	± 20	Quadratic	
2,4,6-Trichlorophenol	470	510	661000	727000	10	NA	± 20	AverageRF	
2,4,5-Trichlorophenol	470	460	286000	279000	-3	NA	± 20	AverageRF	
2,3,4,5-Tetrachlorophenol	470	440	555000	522000	-6	NA	± 20	AverageRF	
2,3,5,6-Tetrachlorophenol	470	500	846000	900000	6	NA	± 20	AverageRF	
Pentachlorophenol	480	480	1080000	872000	NA	1	± 20	Quadratic	

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1413047
Date Analyzed: 11/28/2014

Continuing Calibration Verification Summary
Chlorinated Phenols

Calibration Type: External Standard
Analysis Method: 8151M

Calibration Date: 11/27/2014
Calibration ID: CAL13703
Analysis Lot: KWG1415840
Units: ug/L

File ID: J:\GC36\DATA\112814P\1128000062.D

Column ID: RTX-CLP

Analyte Name	Expected	Result	Average	CCV	%D	%Drift	Criteria	Curve Fit
			RF	RF				
4-Bromo-2,6-dichlorophenol	500	500	263000	288000	NA	0	± 20	Quadratic
2,4,6-Trichlorophenol	470	470	285000	284000	NA	0	± 20	Linear(0,0)
2,4,5-Trichlorophenol	470	440	129000	110000	NA	-6	± 20	Quadratic(0,0)
2,3,4,5-Tetrachlorophenol	470	460	255000	217000	NA	-3	± 20	Linear(0,0)
2,3,5,6-Tetrachlorophenol	470	460	374000	364000	-3	NA	± 20	AverageRF
Pentachlorophenol	480	440	456000	342000	NA	-7	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413047
 Date Analyzed: 11/28/2014

Continuing Calibration Verification Summary
Chlorinated Phenols

Calibration Type:	External Standard	Calibration Date:	11/27/2014
Analysis Method:	8151M	Calibration ID:	CAL13703
		Analysis Lot:	KWG1415840
		Units:	ug/L

File ID: J:\GC36\DATA\112814P\1128000062.D\1128000062.C. Column ID: RTX-CLP2

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	500	500	537000	708000	NA	0	± 20	Quadratic
2,4,6-Trichlorophenol	470	520	661000	735000	11	NA	± 20	AverageRF
2,4,5-Trichlorophenol	470	460	286000	282000	-2	NA	± 20	AverageRF
2,3,4,5-Tetrachlorophenol	470	450	555000	529000	-5	NA	± 20	AverageRF
2,3,5,6-Tetrachlorophenol	470	510	846000	907000	7	NA	± 20	AverageRF
Pentachlorophenol	480	470	1080000	847000	NA	-2	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413047
 Date Analyzed: 12/02/2014

Continuing Calibration Verification Summary
Chlorinated Phenols

Calibration Type: External Standard
 Analysis Method: 8151M

Calibration Date: 11/27/2014
 Calibration ID: CAL13703
 Analysis Lot: KWG1415867
 Units: ug/L

File ID: J:\GC36\DATA\120214P\120200003.D

Column ID: RTX-CLP

Analyte Name	Expected	Result	Average		%D	%Drift	Criteria	Curve Fit
			RF	CCV				
4-Bromo-2,6-dichlorophenol	50	55	263000	282000	NA	10	± 20	Quadratic
2,4,6-Trichlorophenol	47	55	285000	334000	NA	18	± 20	Linear(0,0)
2,4,5-Trichlorophenol	47	52	129000	136000	NA	11	± 20	Quadratic(0,0)
2,3,4,5-Tetrachlorophenol	47	57	255000	271000	NA	21 *	± 20	Linear(0,0)
2,3,5,6-Tetrachlorophenol	47	54	374000	431000	15	NA	± 20	AverageRF
Pentachlorophenol	48	44	456000	356000	NA	-6	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1413047
Date Analyzed: 12/02/2014

Continuing Calibration Verification Summary
Chlorinated Phenols

Calibration Type: External Standard
Analysis Method: 8151M

Calibration Date: 11/27/2014
Calibration ID: CAL13703
Analysis Lot: KWG1415867
Units: ug/L

File ID: J:\GC36\DATA\120214P\120200003.D\120200003.C.

Column ID: RTX-CLP2

Analyte Name	Expected	Result	Average		CCV		%Drift	Criteria	Curve Fit
			RF	RF	%D	NA			
4-Bromo-2,6-dichlorophenol	50	60	537000	659000	20	NA	± 20	Quadratic	
2,4,6-Trichlorophenol	47	60	661000	852000	* 29	NA	± 20	AverageRF	
2,4,5-Trichlorophenol	47	59	286000	364000	* 27	NA	± 20	AverageRF	
2,3,4,5-Tetrachlorophenol	47	49	555000	573000	3	NA	± 20	AverageRF	
2,3,5,6-Tetrachlorophenol	47	55	846000	979000	16	NA	± 20	AverageRF	
Pentachlorophenol	48	44	1080000	801000	-7	NA	± 20	Quadratic	

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413047
 Date Analyzed: 12/02/2014

Continuing Calibration Verification Summary
Chlorinated Phenols

Calibration Type: External Standard
 Analysis Method: 8151M

Calibration Date: 11/27/2014
 Calibration ID: CAL13703
 Analysis Lot: KWG1415867
 Units: ug/L

File ID: J:\GC36\DATA\120214P\1202000010.D

Column ID: RTX-CLP

Analyte Name	Expected	Result	Average		CCV		%Drift	Criteria	Curve Fit
			RF	RF	%D				
4-Bromo-2,6-dichlorophenol	50	45	263000	227000	NA	-11	± 20	Quadratic	
2,4,6-Trichlorophenol	47	43	285000	260000	NA	-8	± 20	Linear(0,0)	
2,4,5-Trichlorophenol	47	44	129000	116000	NA	-5	± 20	Quadratic(0,0)	
2,3,4,5-Tetrachlorophenol	47	45	255000	213000	NA	-5	± 20	Linear(0,0)	
2,3,5,6-Tetrachlorophenol	47	42	374000	331000	-11	NA	± 20	AverageRF	
Pentachlorophenol	48	40	456000	321000	NA	-16	± 20	Quadratic	

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington

Service Request: K1413047
Date Analyzed: 12/02/2014

Continuing Calibration Verification Summary
Chlorinated Phenols

Calibration Type:	External Standard	Calibration Date:	11/27/2014
Analysis Method:	8151M	Calibration ID:	CAL13703
File ID:	J:\GC36\DATA\120214P\1202000010.D\1202000010C.	Analysis Lot:	KWG1415867
		Units:	ug/L
		Column ID:	RTX-CLP2

Analyte Name	Expected	Result	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
4-Bromo-2,6-dichlorophenol	50	47	537000	505000	NA	-7	± 20	Quadratic
2,4,6-Trichlorophenol	47	44	661000	617000	-7	NA	± 20	AverageRF
2,4,5-Trichlorophenol	47	44	286000	269000	-6	NA	± 20	AverageRF
2,3,4,5-Tetrachlorophenol	47	37	555000	440000	-21 *	NA	± 20	AverageRF
2,3,5,6-Tetrachlorophenol	47	41	846000	737000	-13	NA	± 20	AverageRF
Pentachlorophenol	48	39	1080000	710000	NA	-18	± 20	Quadratic

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413047

Analysis Run Log
Chlorinated Phenols

Analysis Method: 8151M

Analysis Lot: KWG1415840
 Instrument ID: GC36
 Column: RTX-CLP

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
28000003.D	Continuing Calibration Verification	KWG1415840-1	11/28/2014	10:49		11/28/2014	10:59
28000004.D	Instrument Blank	KWG1415840-8	11/28/2014	11:02		11/28/2014	11:12
28000005.D	ZZZZZZ	ZZZZZZ	11/28/2014	11:16		11/28/2014	11:25
28000006.D	ZZZZZZ	ZZZZZZ	11/28/2014	11:29		11/28/2014	11:39
28000007.D	ZZZZZZ	ZZZZZZ	11/28/2014	11:42		11/28/2014	11:52
28000008.D	ZZZZZZ	ZZZZZZ	11/28/2014	11:56		11/28/2014	12:05
28000009.D	ZZZZZZ	ZZZZZZ	11/28/2014	12:09		11/28/2014	12:19
28000010.D	ZZZZZZ	ZZZZZZ	11/28/2014	12:22		11/28/2014	12:32
28000011.D	Continuing Calibration Verification	KWG1415840-2	11/28/2014	12:36		11/28/2014	12:45
28000012.D	Instrument Blank	KWG1415840-9	11/28/2014	12:49		11/28/2014	12:59
28000013.D	ZZZZZZ	ZZZZZZ	11/28/2014	13:02		11/28/2014	13:12
28000014.D	ZZZZZZ	ZZZZZZ	11/28/2014	13:15		11/28/2014	13:25
28000015.D	ZZZZZZ	ZZZZZZ	11/28/2014	13:29		11/28/2014	13:39
28000016.D	ZZZZZZ	ZZZZZZ	11/28/2014	13:42		11/28/2014	13:52
28000017.D	ZZZZZZ	ZZZZZZ	11/28/2014	13:55		11/28/2014	14:05
28000018.D	ZZZZZZ	ZZZZZZ	11/28/2014	14:09		11/28/2014	14:18
28000019.D	ZZZZZZ	ZZZZZZ	11/28/2014	14:22		11/28/2014	14:32
28000020.D	ZZZZZZ	ZZZZZZ	11/28/2014	14:35		11/28/2014	14:45
28000021.D	ZZZZZZ	ZZZZZZ	11/28/2014	14:49		11/28/2014	14:58
28000022.D	ZZZZZZ	ZZZZZZ	11/28/2014	15:02		11/28/2014	15:12
28000023.D	Continuing Calibration Verification	KWG1415840-3	11/28/2014	15:15		11/28/2014	15:25
28000024.D	Instrument Blank	KWG1415840-10	11/28/2014	15:28		11/28/2014	15:38
28000025.D	ZZZZZZ	ZZZZZZ	11/28/2014	15:42		11/28/2014	15:51
28000026.D	ZZZZZZ	ZZZZZZ	11/28/2014	15:55		11/28/2014	16:05
28000027.D	ZZZZZZ	ZZZZZZ	11/28/2014	16:08		11/28/2014	16:18
28000028.D	ZZZZZZ	ZZZZZZ	11/28/2014	16:21		11/28/2014	16:31
28000029.D	ZZZZZZ	ZZZZZZ	11/28/2014	16:35		11/28/2014	16:45
28000030.D	EW-2-4 Composite	K1413047-003	11/28/2014	16:48		11/28/2014	16:58
28000031.D	EW-2-4 CompositeMS	KWG1415698-1	11/28/2014	17:01		11/28/2014	17:11
28000032.D	EW-2-4 CompositeDMS	KWG1415698-2	11/28/2014	17:15		11/28/2014	17:24
28000033.D	ZZZZZZ	ZZZZZZ	11/28/2014	17:28		11/28/2014	17:38
28000034.D	ZZZZZZ	ZZZZZZ	11/28/2014	17:41		11/28/2014	17:51
28000035.D	Continuing Calibration Verification	KWG1415840-4	11/28/2014	17:54		11/28/2014	18:04
28000036.D	Instrument Blank	KWG1415840-11	11/28/2014	18:08		11/28/2014	18:18

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413047

Analysis Run Log
Chlorinated Phenols

Analysis Method: 8151M

Analysis Lot: KWG1415840
 Instrument ID: GC36
 Column: RTX-CLP

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
28000037.D	ZZZZZZ	ZZZZZZ	11/28/2014	18:21		11/28/2014	18:31
28000038.D	ZZZZZZ	ZZZZZZ	11/28/2014	18:34		11/28/2014	18:44
28000039.D	ZZZZZZ	ZZZZZZ	11/28/2014	18:48		11/28/2014	18:57
28000040.D	ZZZZZZ	ZZZZZZ	11/28/2014	19:01		11/28/2014	19:11
28000041.D	ZZZZZZ	ZZZZZZ	11/28/2014	19:14		11/28/2014	19:24
28000043.D	ZZZZZZ	ZZZZZZ	11/28/2014	19:41		11/28/2014	19:50
28000044.D	ZZZZZZ	ZZZZZZ	11/28/2014	19:54		11/28/2014	20:04
28000045.D	ZZZZZZ	ZZZZZZ	11/28/2014	20:07		11/28/2014	20:17
28000046.D	ZZZZZZ	ZZZZZZ	11/28/2014	20:21		11/28/2014	20:30
28000047.D	Continuing Calibration Verification	KWG1415840-5	11/28/2014	20:34		11/28/2014	20:44
28000048.D	Instrument Blank	KWG1415840-12	11/28/2014	20:47		11/28/2014	20:57
28000049.D	ZZZZZZ	ZZZZZZ	11/28/2014	21:00		11/28/2014	21:10
28000050.D	Lab Control Sample	KWG1415698-3	11/28/2014	21:14		11/28/2014	21:23
28000051.D	Method Blank	KWG1415698-4	11/28/2014	21:27		11/28/2014	21:37
28000052.D	ZZZZZZ	ZZZZZZ	11/28/2014	21:40		11/28/2014	21:50
28000053.D	ZZZZZZ	ZZZZZZ	11/28/2014	21:53		11/28/2014	22:03
28000054.D	ZZZZZZ	ZZZZZZ	11/28/2014	22:07		11/28/2014	22:16
28000055.D	ZZZZZZ	ZZZZZZ	11/28/2014	22:20		11/28/2014	22:30
28000056.D	ZZZZZZ	ZZZZZZ	11/28/2014	22:33		11/28/2014	22:43
28000057.D	ZZZZZZ	ZZZZZZ	11/28/2014	22:47		11/28/2014	22:56
28000058.D	ZZZZZZ	ZZZZZZ	11/28/2014	23:00		11/28/2014	23:10
28000059.D	ZZZZZZ	ZZZZZZ	11/28/2014	23:13		11/28/2014	23:23
28000060.D	ZZZZZZ	ZZZZZZ	11/28/2014	23:26		11/28/2014	23:36
28000061.D	ZZZZZZ	ZZZZZZ	11/28/2014	23:40		11/28/2014	23:49
28000062.D	Continuing Calibration Verification	KWG1415840-6	11/28/2014	23:53		11/29/2014	00:03
28000063.D	Instrument Blank	KWG1415840-13	11/29/2014	00:06		11/29/2014	00:16
28000064.D	ZZZZZZ	ZZZZZZ	11/29/2014	00:19		11/29/2014	00:29
28000065.D	ZZZZZZ	ZZZZZZ	11/29/2014	00:33		11/29/2014	00:43
28000066.D	ZZZZZZ	ZZZZZZ	11/29/2014	00:46		11/29/2014	00:56
28000067.D	ZZZZZZ	ZZZZZZ	11/29/2014	00:59		11/29/2014	01:09
28000068.D	ZZZZZZ	ZZZZZZ	11/29/2014	01:13		11/29/2014	01:22
28000069.D	ZZZZZZ	ZZZZZZ	11/29/2014	01:26		11/29/2014	01:36
28000070.D	ZZZZZZ	ZZZZZZ	11/29/2014	01:39		11/29/2014	01:49
28000071.D	ZZZZZZ	ZZZZZZ	11/29/2014	01:52		11/29/2014	02:02

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413047

Analysis Run Log
Chlorinated Phenols

Analysis Method: 8151M

Analysis Lot: KWG1415840
 Instrument ID: GC36
 Column: RTX-CLP

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
28000072.D	ZZZZZZ	ZZZZZZ	11/29/2014	02:06		11/29/2014	02:16
28000073.D	ZZZZZZ	ZZZZZZ	11/29/2014	02:19		11/29/2014	02:29
28000074.D	Continuing Calibration Verification	KWG1415840-7	11/29/2014	02:32		11/29/2014	02:42
28000075.D	Instrument Blank	KWG1415840-14	11/29/2014	02:46		11/29/2014	02:55

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington

Service Request: K1413047

Analysis Run Log
Chlorinated Phenols

Analysis Method: 8151M

Analysis Lot: KWG1415867
 Instrument ID: GC36
 Column: RTX-CLP

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
02000003.D	Continuing Calibration Verification	KWG1415867-1	12/2/2014	11:27		12/2/2014	11:37
02000004.D	Instrument Blank	KWG1415867-3	12/2/2014	11:41		12/2/2014	11:50
02000005.D	ZZZZZZ	ZZZZZZ	12/2/2014	11:54		12/2/2014	12:04
02000006.D	ZZZZZZ	ZZZZZZ	12/2/2014	12:07		12/2/2014	12:17
02000007.D	EW-2-4 Composite	K1413047-003	12/2/2014	12:20		12/2/2014	12:30
02000008.D	ZZZZZZ	ZZZZZZ	12/2/2014	12:33		12/2/2014	12:43
02000009.D	ZZZZZZ	ZZZZZZ	12/2/2014	12:46		12/2/2014	12:56
02000010.D	Continuing Calibration Verification	KWG1415867-2	12/2/2014	13:00		12/2/2014	13:09

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

QA/QC Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington
 Sample Matrix: Water

Service Request: K1413047
 Date Extracted: 11/20/2014

Extraction Prep Log
Chlorinated Phenols

Extraction Method: Method
 Analysis Method: 8151M

Extraction Lot: KWG1415698
 Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
EW-2-4 Composite	K1413047-003	11/17/14	11/19/14	5mL	1mL	NA	
EW-2-4 CompositeDL	K1413047-003	11/17/14	11/19/14	5mL	1mL	NA	
Method Blank	KWG1415698-4	NA	NA	5mL	1mL	NA	
EW-2-4 CompositeMS	KWG1415698-1	11/17/14	11/19/14	5mL	1mL	NA	
EW-2-4 CompositeDMS	KWG1415698-2	11/17/14	11/19/14	5mL	1mL	NA	
Lab Control Sample	KWG1415698-3	NA	NA	5mL	1mL	NA	

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

Confirmation Results

Client: JH Baxter & Company
Project: JH Baxter - Arlington
Sample Matrix: Water

Service Request: K1413047
Date Collected: 11/17/2014
Date Received: 11/19/2014
Date Extracted: 11/20/2014

Chlorinated Phenols

Sample Name: EW-2-4 Composite
Lab Code: K1413047-003
Extraction Method: Method
Analysis Method: 8151M

Units: ug/L
Basis: NA
Level: Low

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Tetrachlorophenols, Total	1.0	0.45	27	29	7.1	i	1	11/28/14
Pentachlorophenol	2.5	0.80	590	610	3.3	D	5	12/02/14

Confirmation Results

Client: JH Baxter & Company
 Project: JH Baxter - Arlington
 Sample Matrix: Water

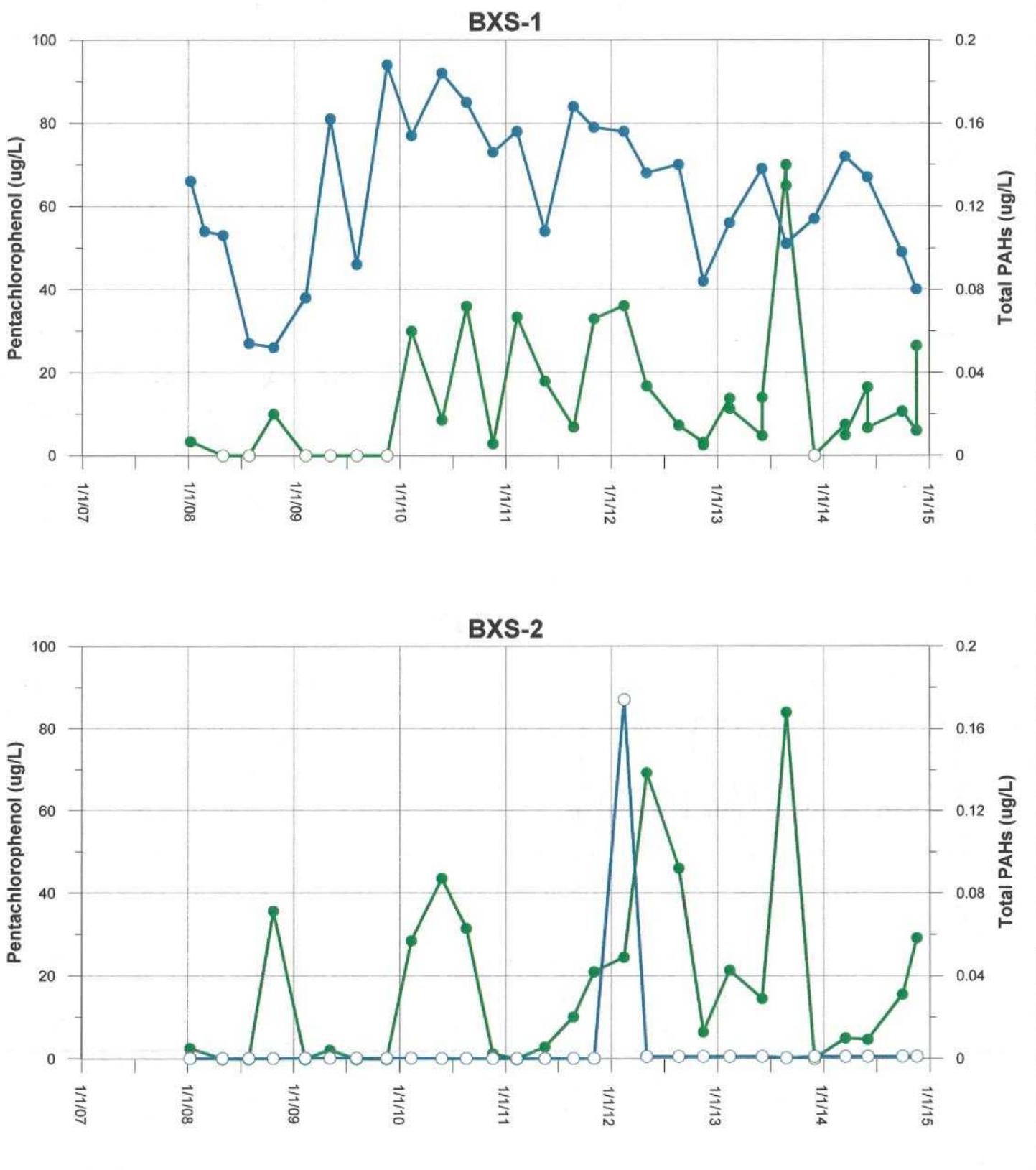
Service Request: K1413047
 Date Collected: NA
 Date Received: NA
 Date Extracted: 11/20/2014

Chlorinated Phenols

Sample Name: Method Blank Units: ug/L
 Lab Code: KWG1415698-4 Basis: NA
 Extraction Method: Method Mod Level: Low
 Analysis Method: 8151M

Analyte Name	MRL	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
2,4,5-Trichlorophenol	1.0	0.19	0.26	0.0	200.0	JP	1	11/28/14

Appendix C



Legend:

- Pentachlorophenol Detected Values
 - Pentachlorophenol Non-Detected Values
 - Total PAHs Detected Values
 - Total PAHs Non-Detected Values

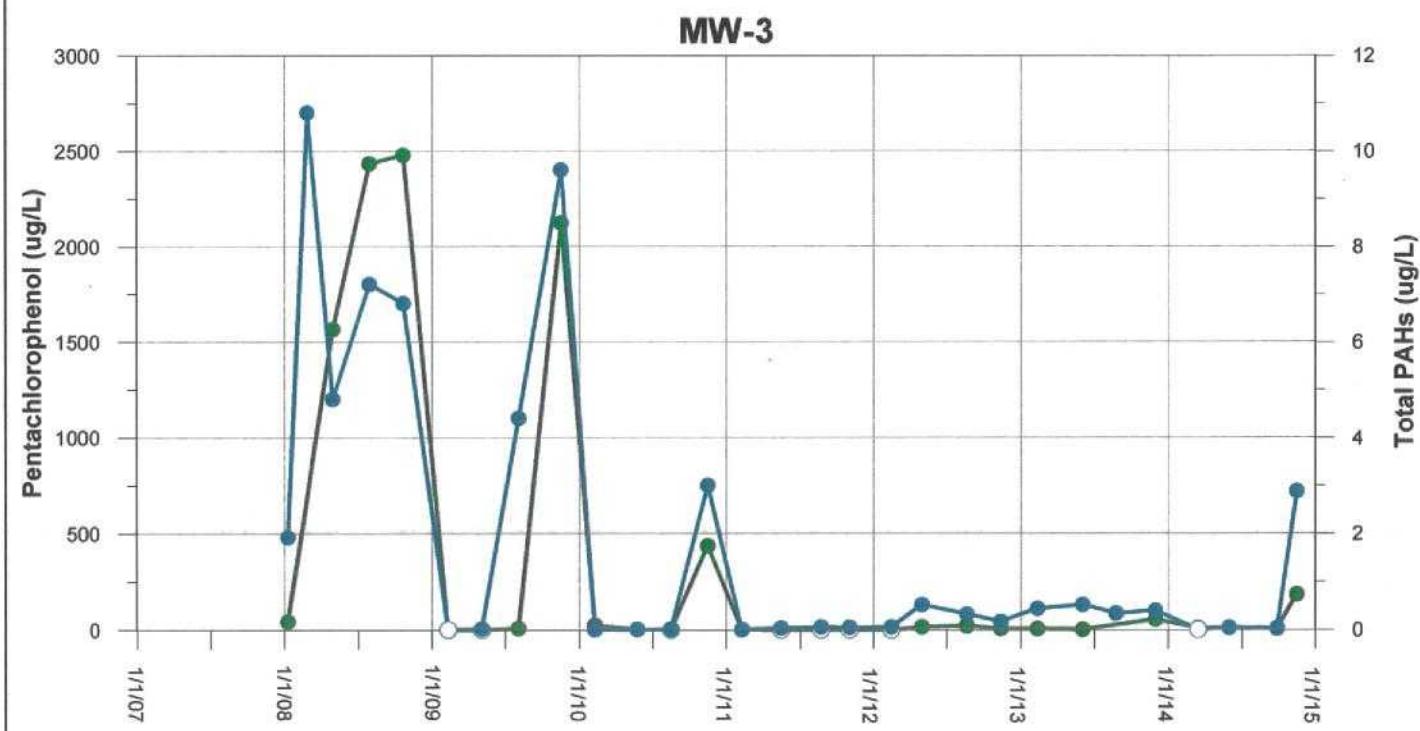
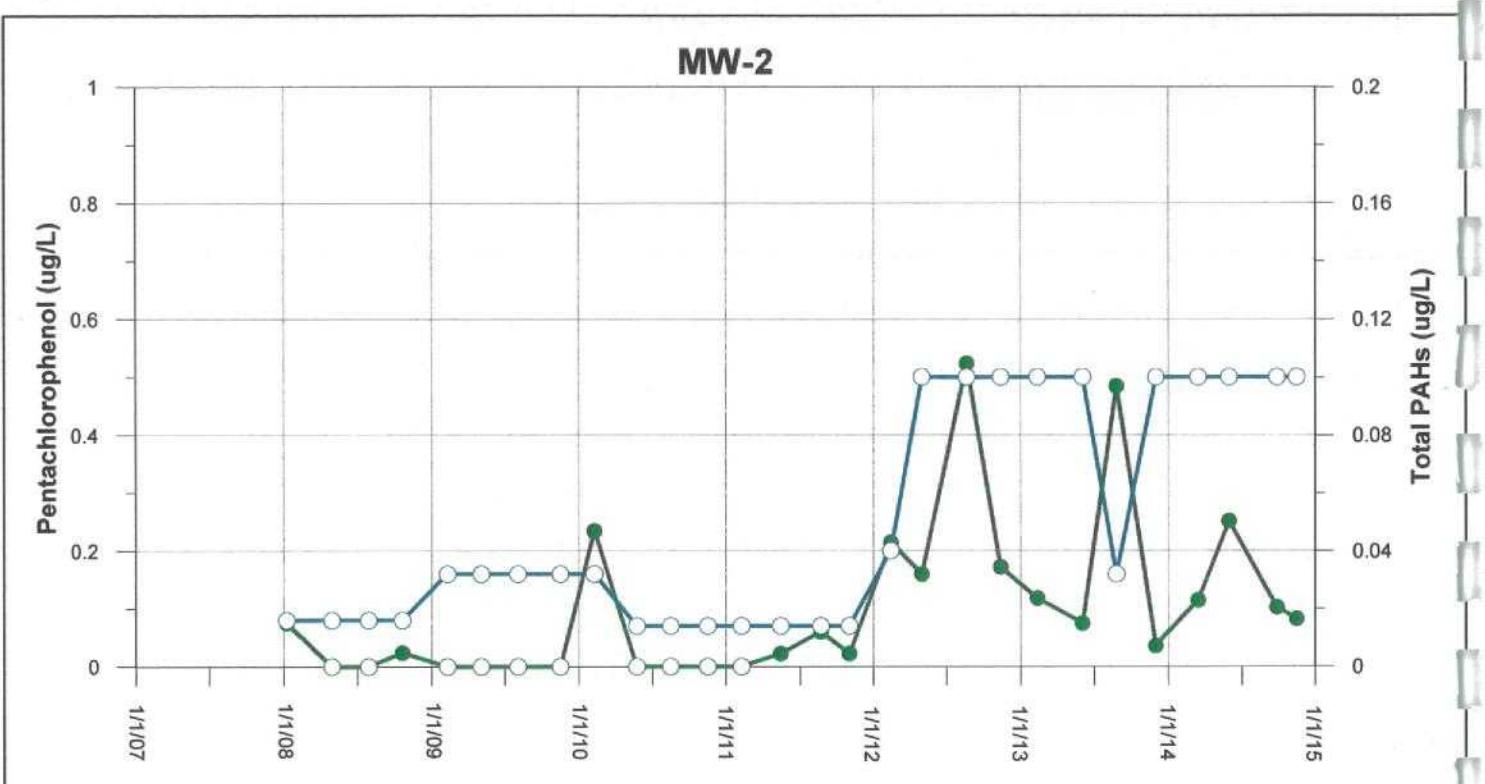
Notes:

ug/L = microgram per liter

Total polycyclic aromatic hydrocarbons (PAHs) equals the sum of detected analytes (ND = 0).

FIGURE C-1




Legend:

- Pentachlorophenol Detected Values
- Pentachlorophenol Non-Detected Values
- Total PAHs Detected Values
- Total PAHs Non-Detected Values

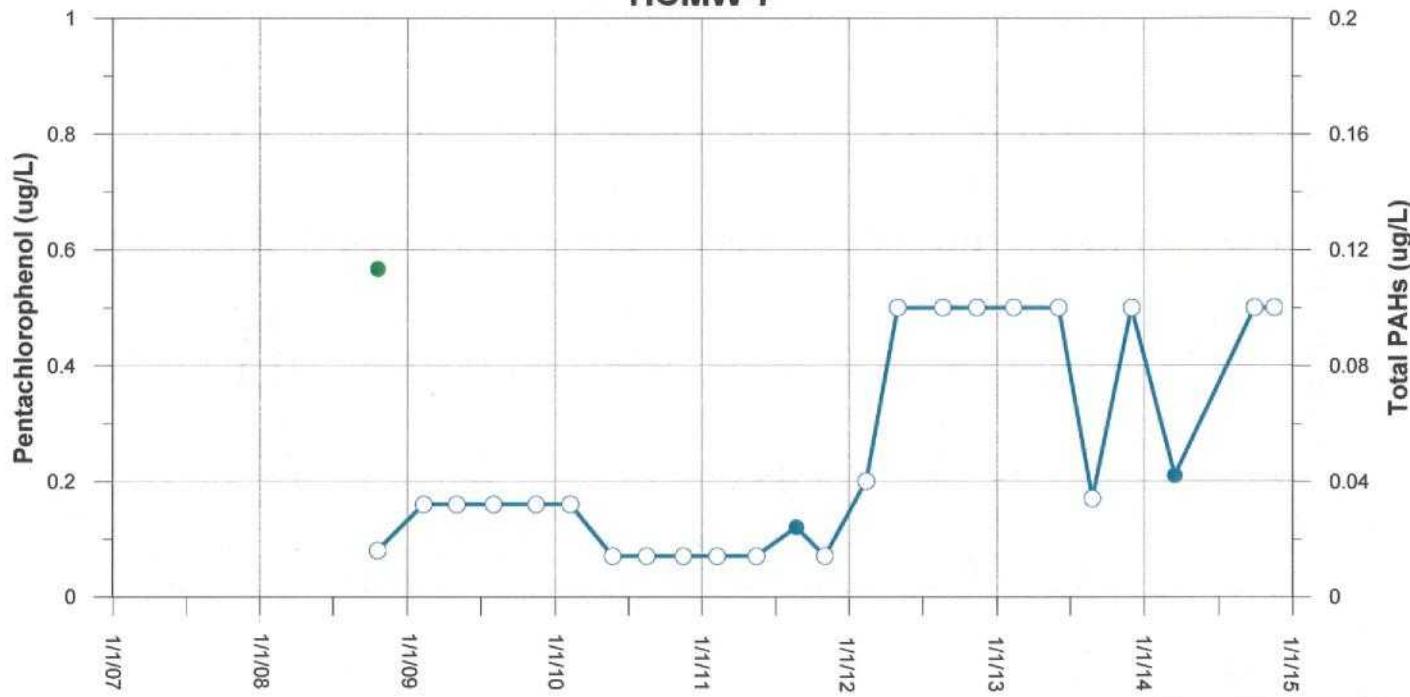
Notes:

ug/L = microgram per liter

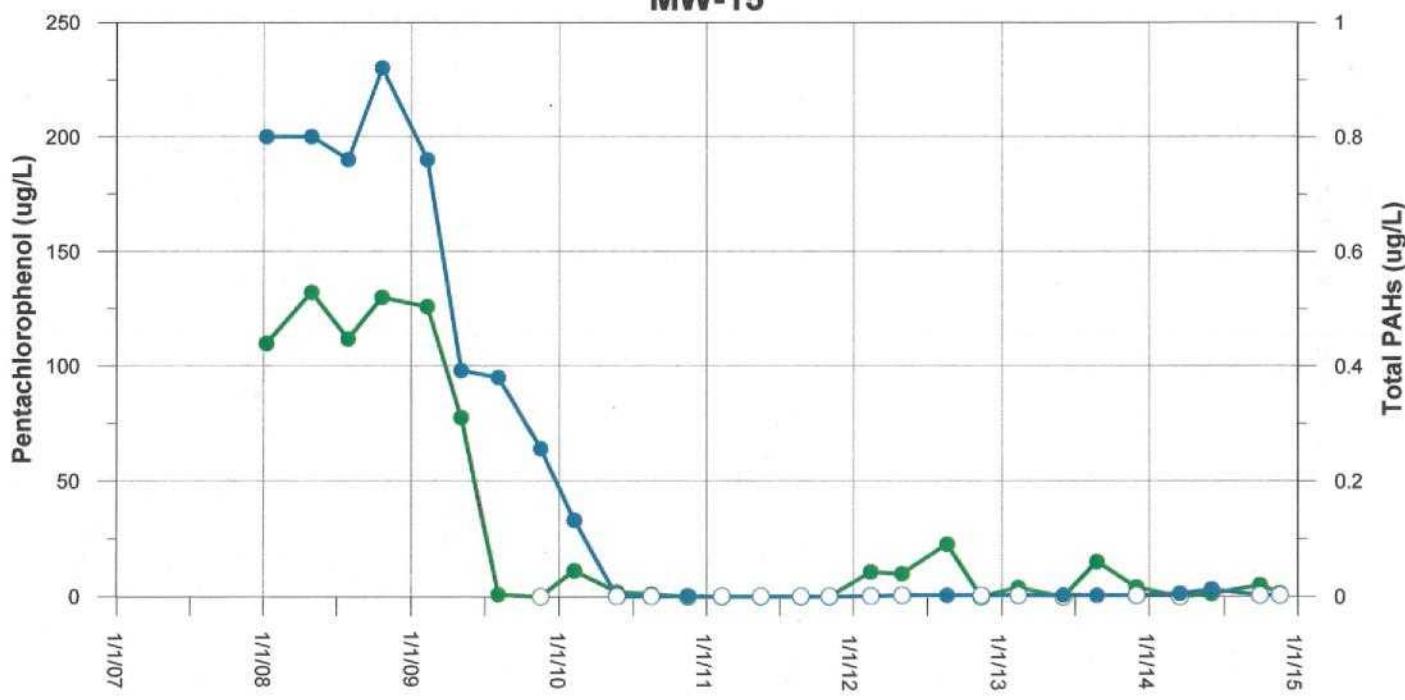
Total polycyclic aromatic hydrocarbons (PAHs) equals the sum of detected analytes (ND = 0).

FIGURE C-2
Pentachlorophenol and Total PAHs Groundwater Concentrations in MW-2 and MW-3
 Former J.H. Baxter Wood Treating Facility
 Arlington, Washington

HCMW-7



MW-15



Legend:

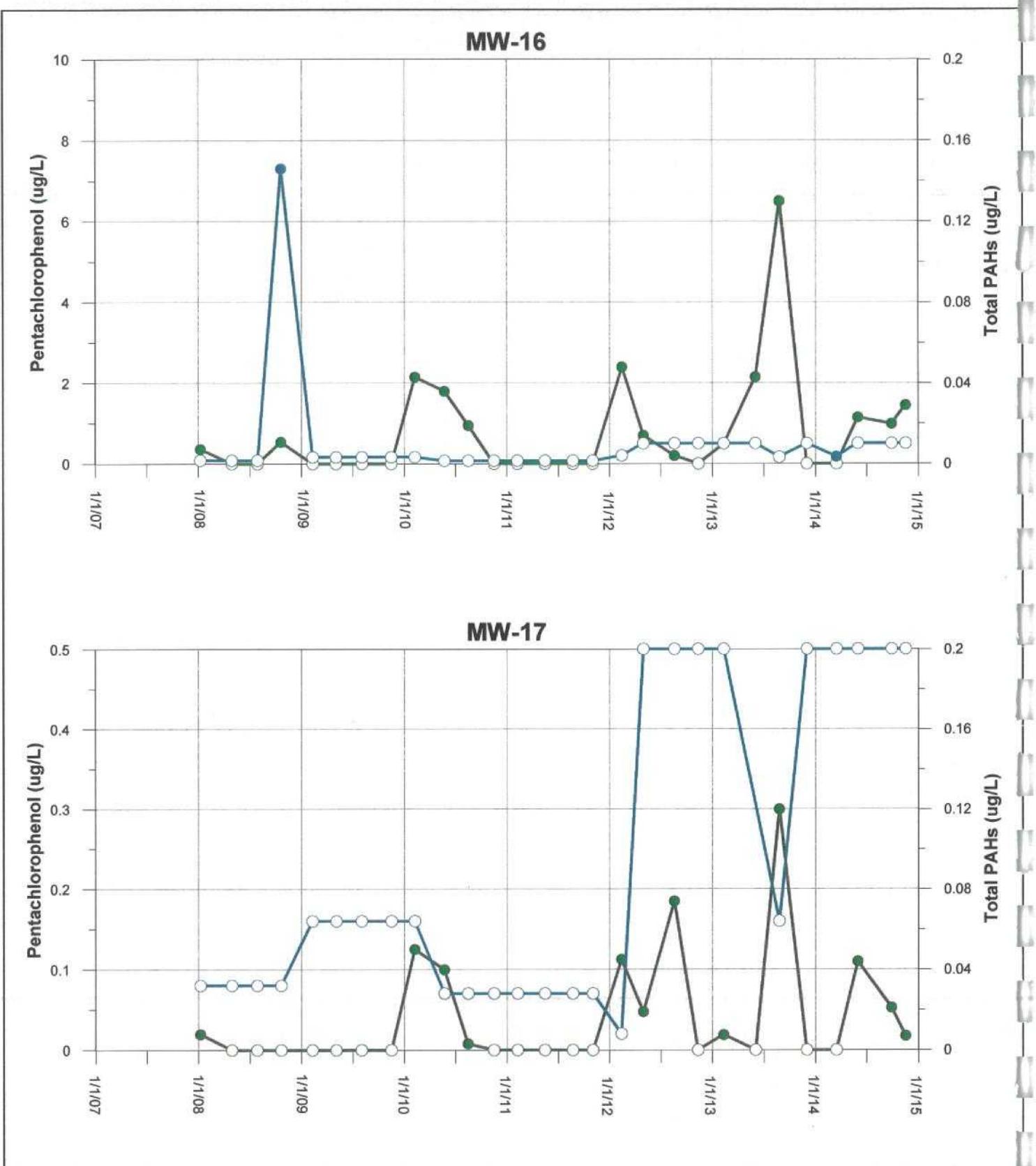
- Pentachlorophenol Detected Values
- Pentachlorophenol Non-Detected Values
- Total PAHs Detected Values
- Total PAHs Non-Detected Values

Notes:

ug/L = microgram per liter

Total polycyclic aromatic hydrocarbons (PAHs) equals the sum of detected analytes (ND = 0).

FIGURE C-3
Pentachlorophenol and Total PAHs Groundwater Concentrations in HCMW-7 and MW-15
 Former J.H. Baxter Wood Treating Facility
 Arlington, Washington



Legend:

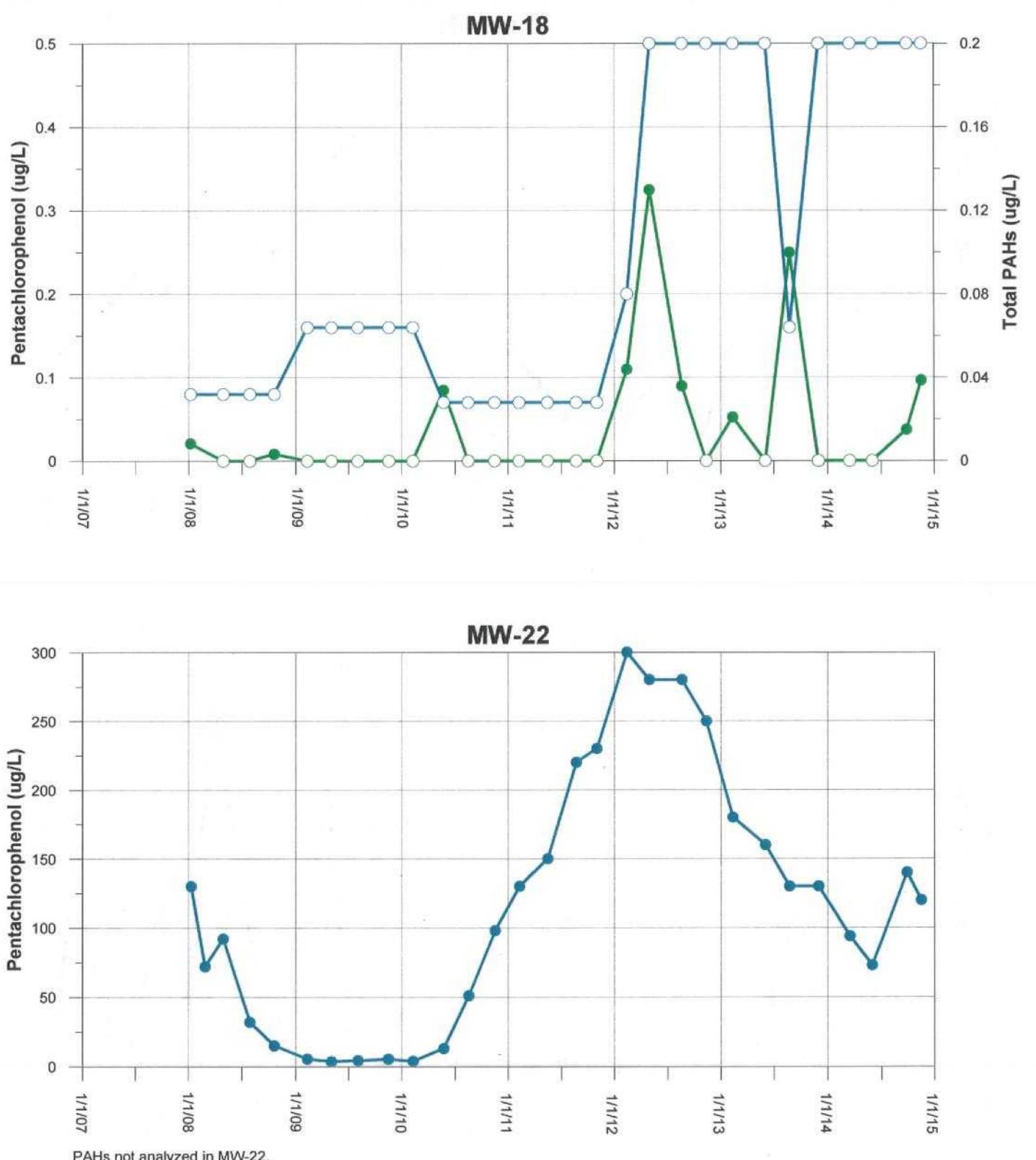
- Pentachlorophenol Detected Values
- Pentachlorophenol Non-Detected Values
- Total PAHs Detected Values
- Total PAHs Non-Detected Values

Notes:

ug/L = microgram per liter

Total polycyclic aromatic hydrocarbons (PAHs) equals the sum of detected analytes (ND = 0).

FIGURE C-4
Pentachlorophenol and Total PAHs Groundwater Concentrations in MW-16 and MW-17
Former J.H. Baxter Wood Treating Facility
Arlington, Washington



Legend:

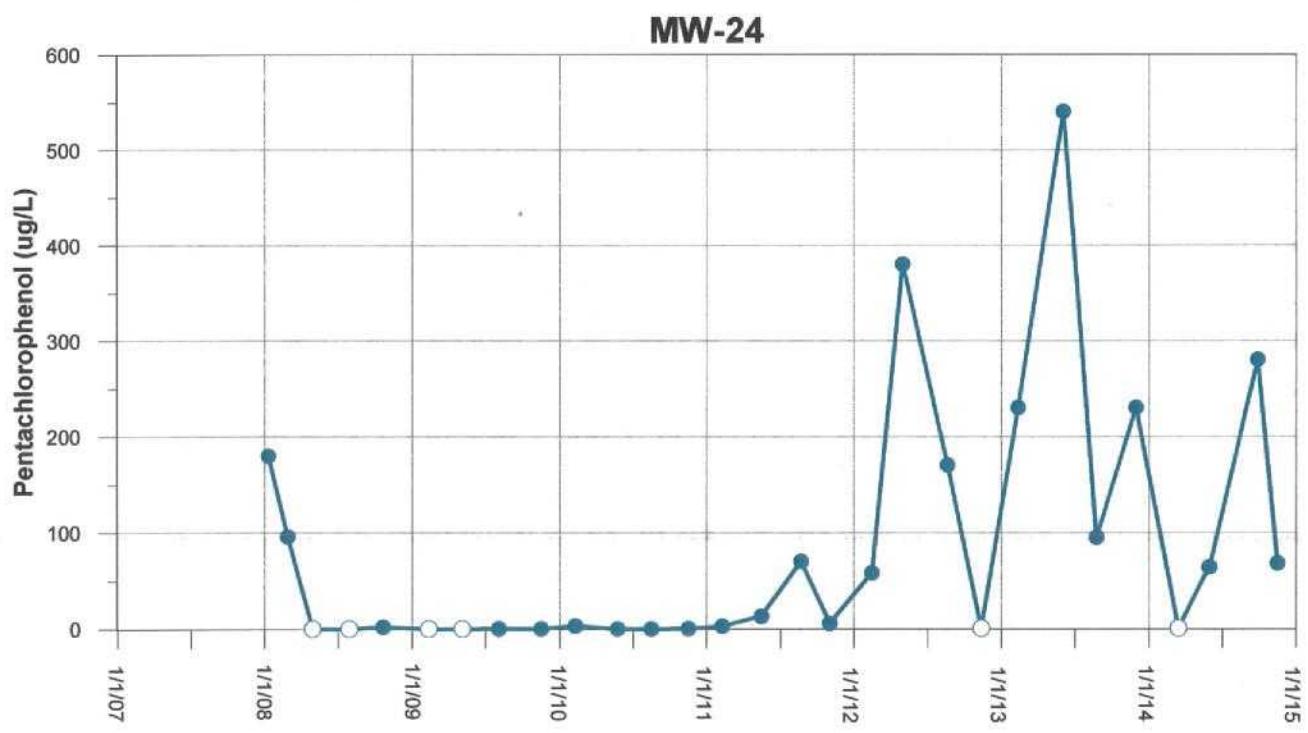
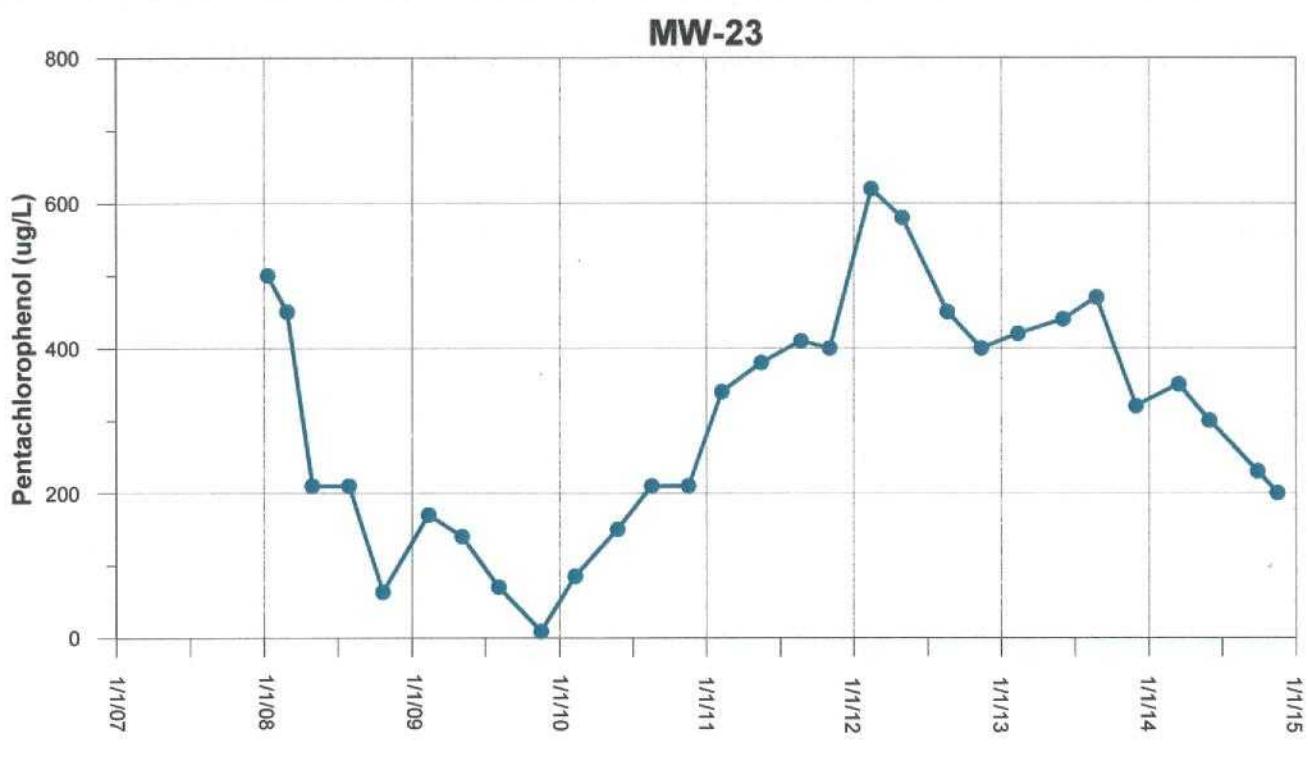
- Pentachlorophenol Detected Values
- Pentachlorophenol Non-Detected Values
- Total PAHs Detected Values
- Total PAHs Non-Detected Values

Notes:

ug/L = microgram per liter

Total polycyclic aromatic hydrocarbons (PAHs) equals the sum of detected analytes (ND = 0).

FIGURE C-5
Pentachlorophenol and Total PAHs Groundwater Concentrations in MW-18 and MW-22
 Former J.H. Baxter Wood Treating Facility
 Arlington, Washington



Legend:

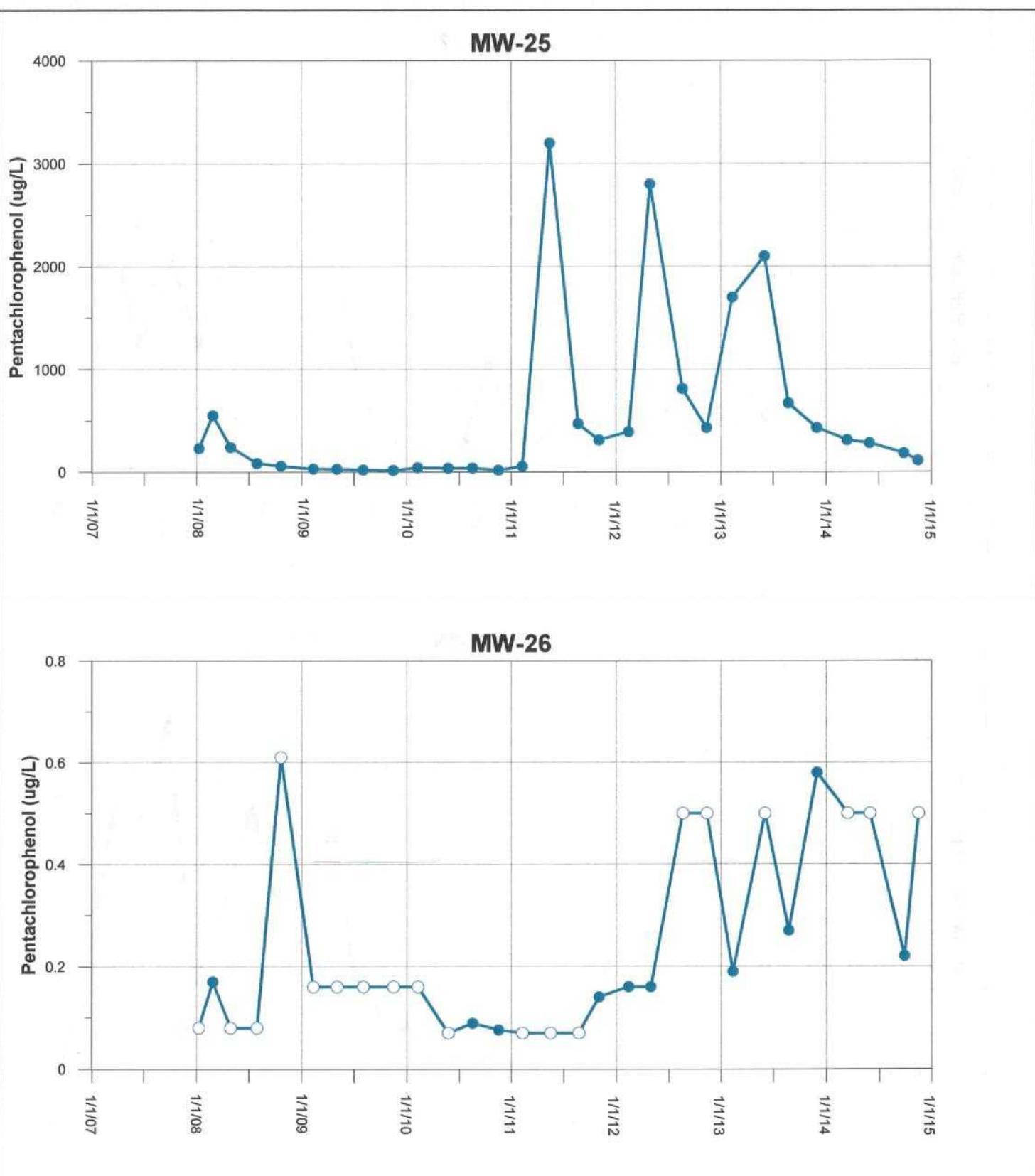
- Pentachlorophenol Detected Values
- Pentachlorophenol Non-Detected Values

Notes:

ug/L = microgram per liter

FIGURE C-6
Pentachlorophenol Groundwater
Concentrations in MW-23 and MW-24
Former J.H. Baxter Wood Treating Facility
Arlington, Washington





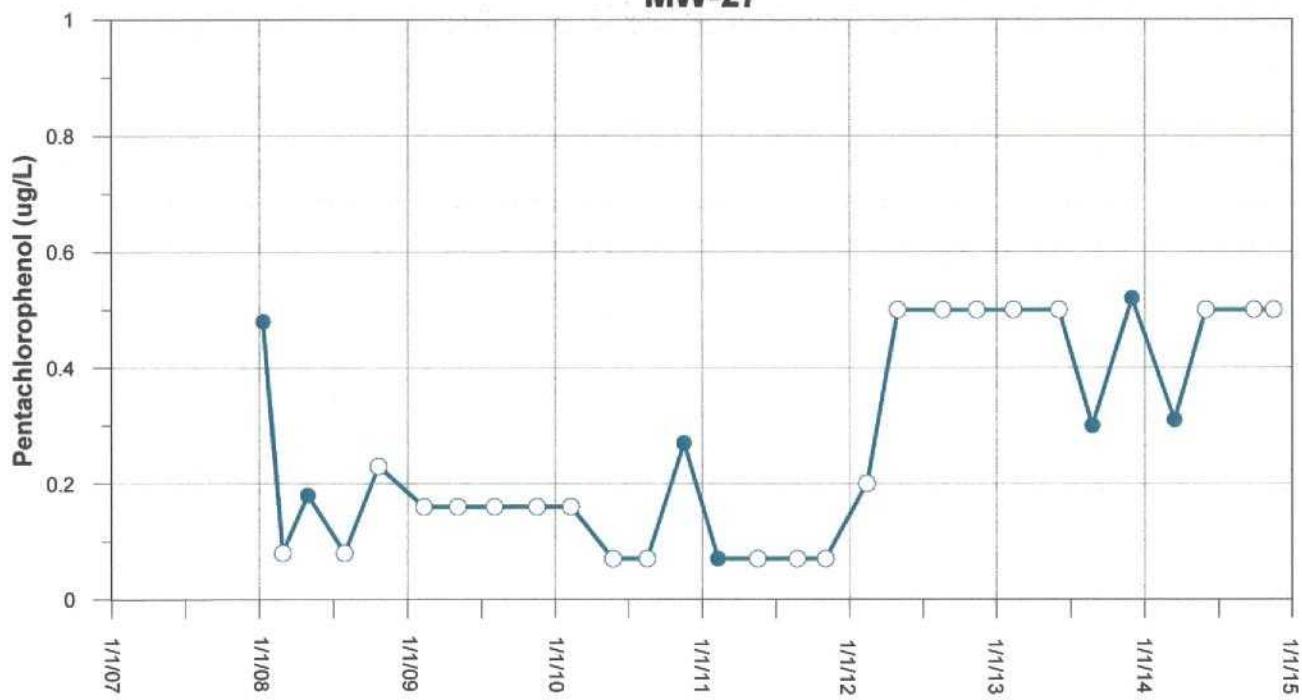
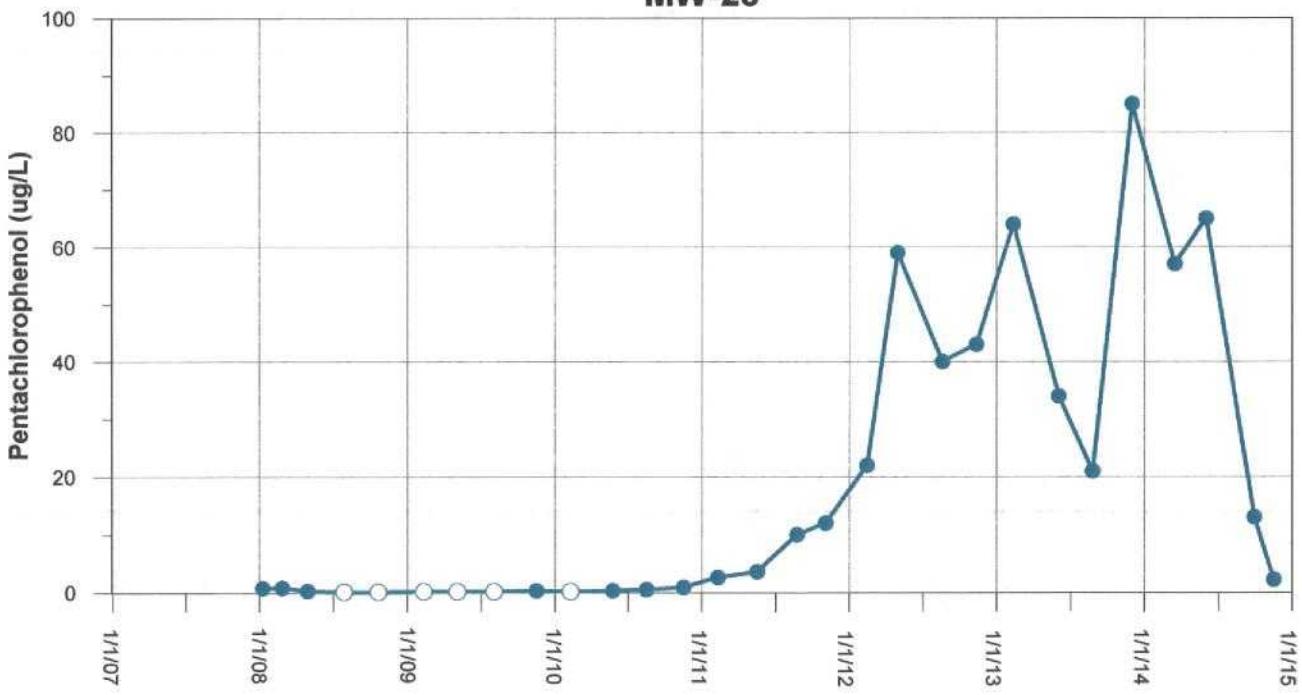
Legend:

- Pentachlorophenol Detected Values
 - Pentachlorophenol Non-Detected Values

FIGURE C-7
**Pentachlorophenol Groundwater
Concentrations in MW-25 and MW-26**
Former J.H. Baxter Wood Treating Facility
Arlington, Washington



Notes:

MW-27**MW-28****Legend:**

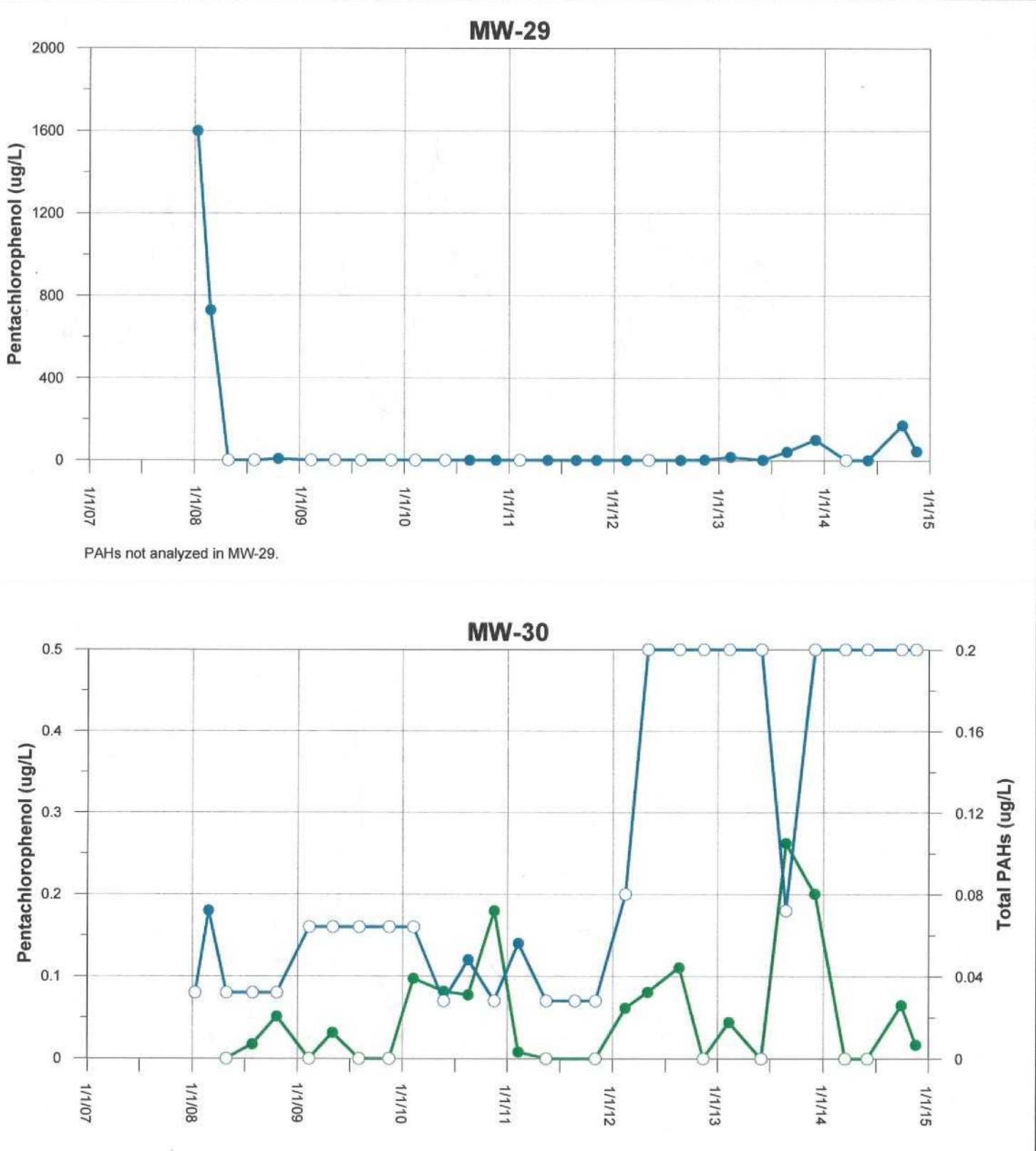
- Pentachlorophenol Detected Values
- Pentachlorophenol Non-Detected Values

Notes:

ug/L = microgram per liter

FIGURE C-8
Pentachlorophenol Groundwater
Concentrations in MW-27 and MW-28
 Former J.H. Baxter Wood Treating Facility
 Arlington, Washington





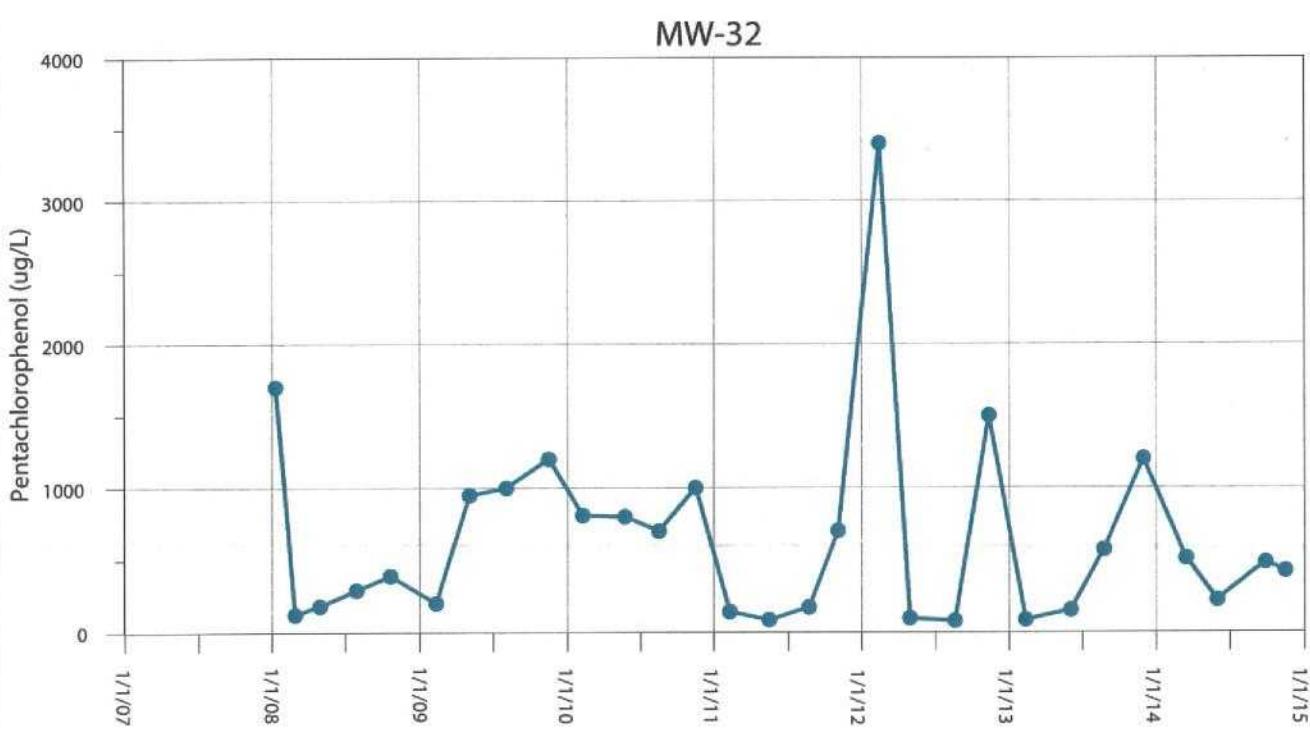
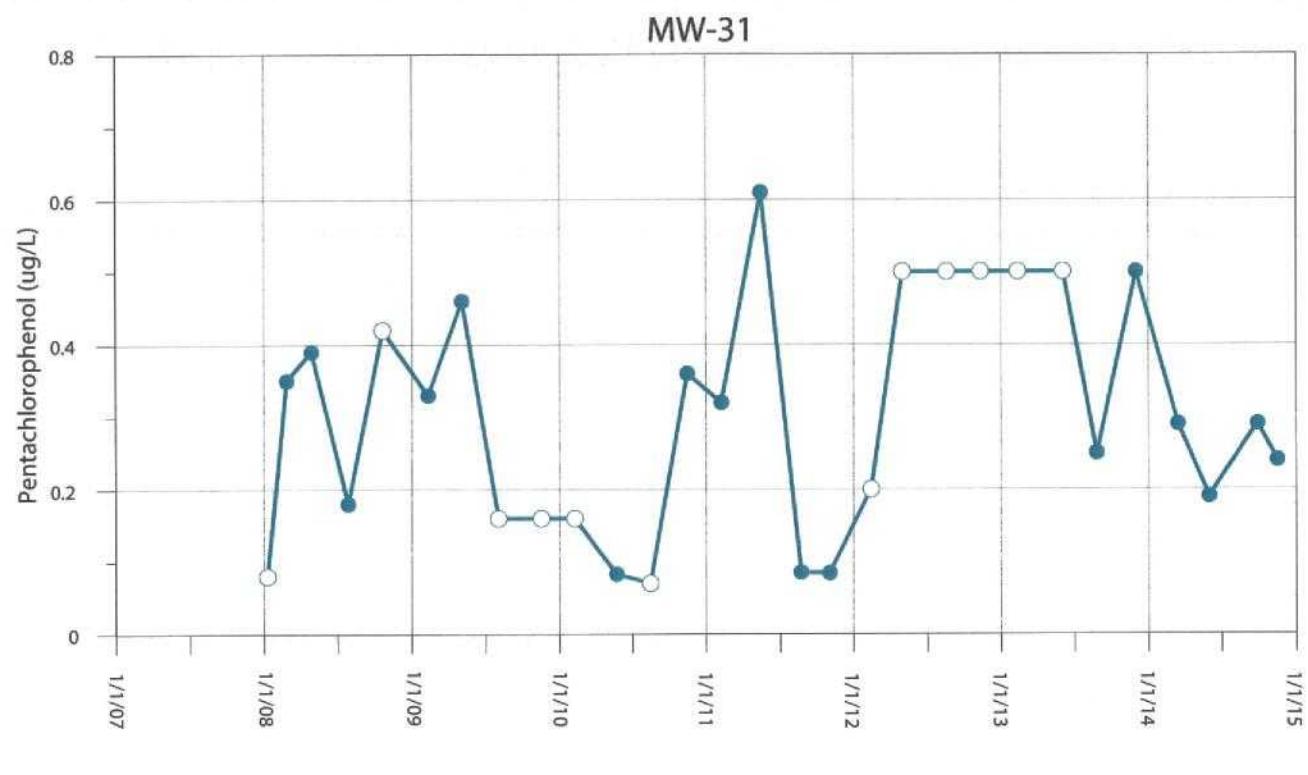
Legend:

- Pentachlorophenol Detected Values
- Pentachlorophenol Non-Detected Values
- Total PAHs Detected Values
- Total PAHs Non-Detected Values

Notes: $\mu\text{g/L}$ = microgram per liter

Total polycyclic aromatic hydrocarbons (PAHs) equals the sum of detected analytes (ND = 0).

FIGURE C-9
Pentachlorophenol and Total PAHs Groundwater Concentrations in MW-29 and MW-30
 Former J.H. Baxter Wood Treating Facility
 Arlington, Washington



Legend:

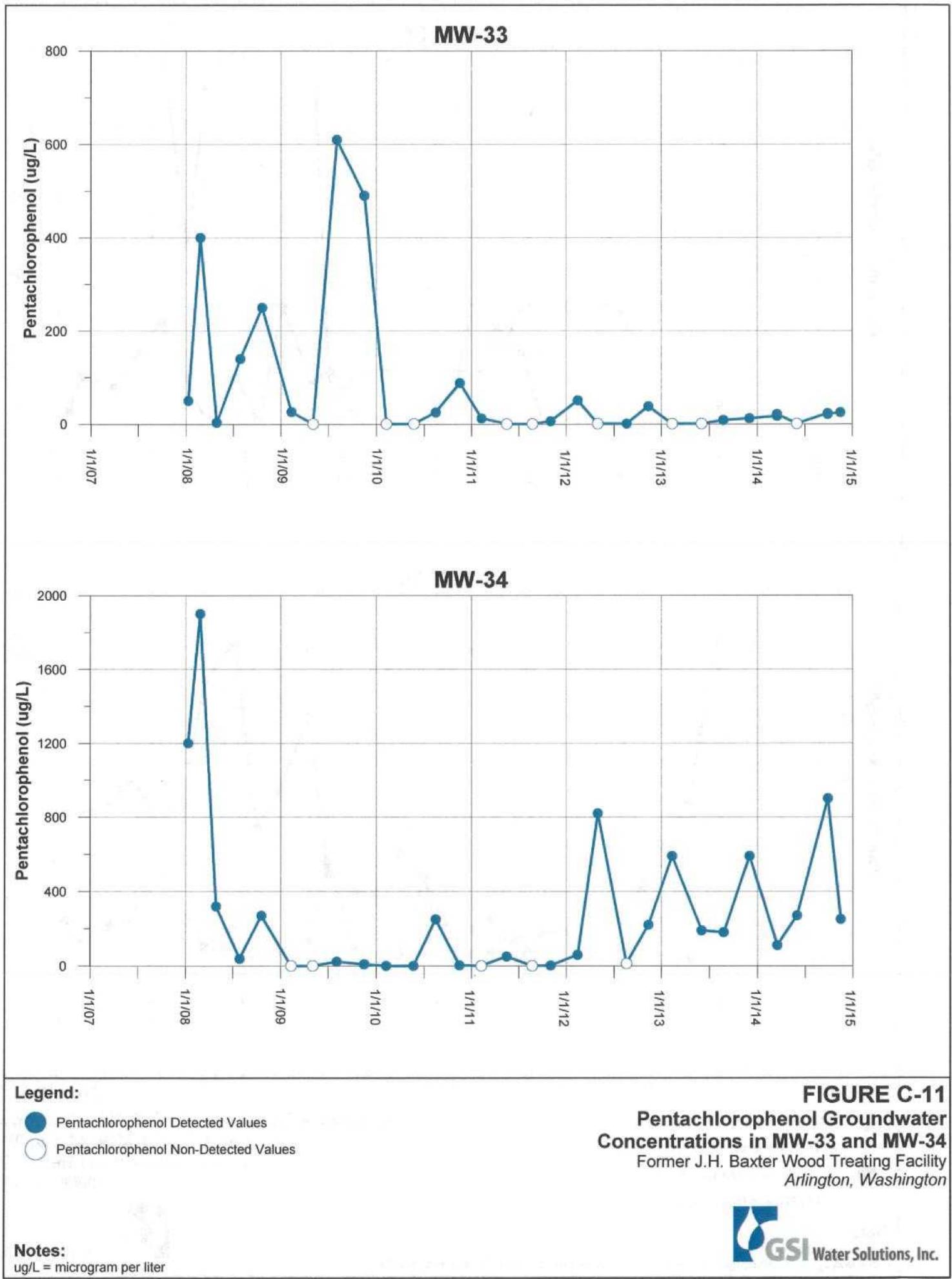
- Pentachlorophenol Detected Values
- Pentachlorophenol Non-Detected Values

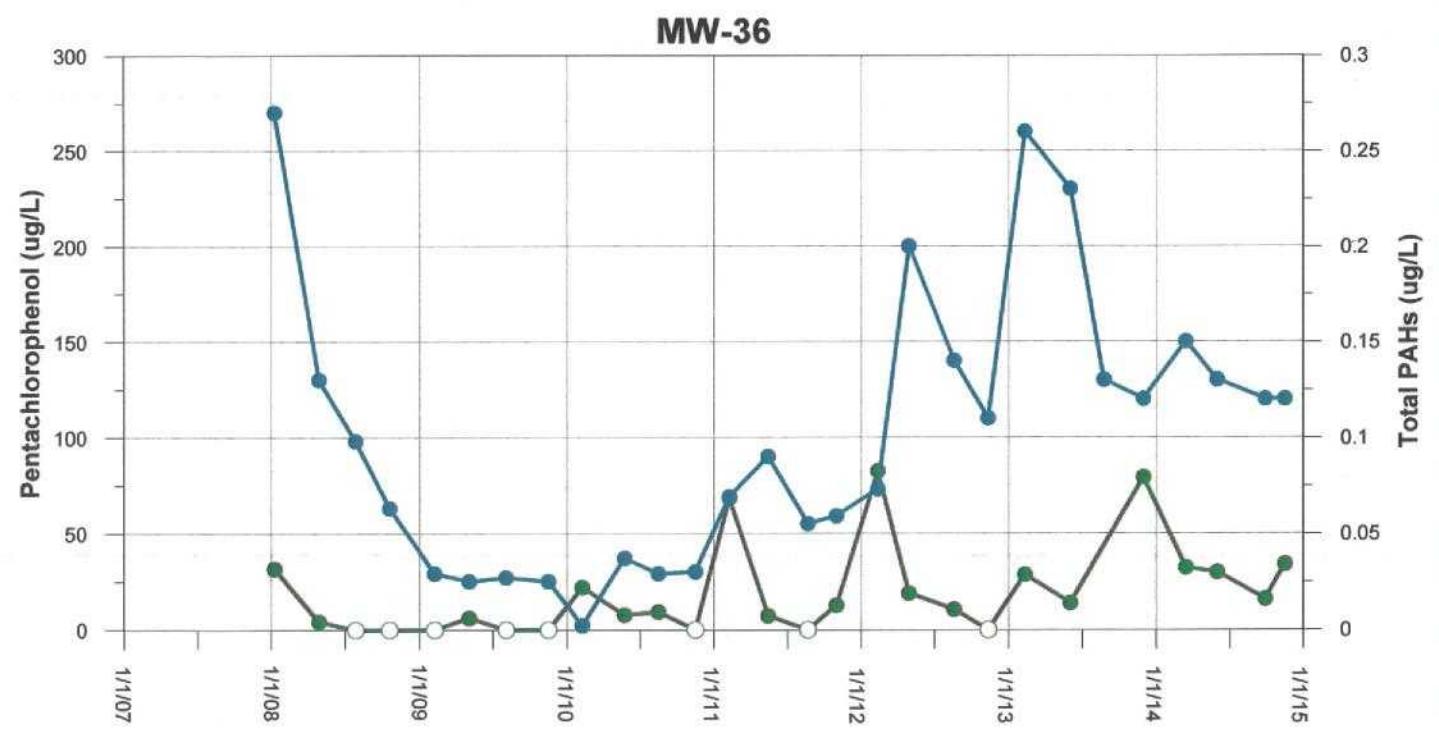
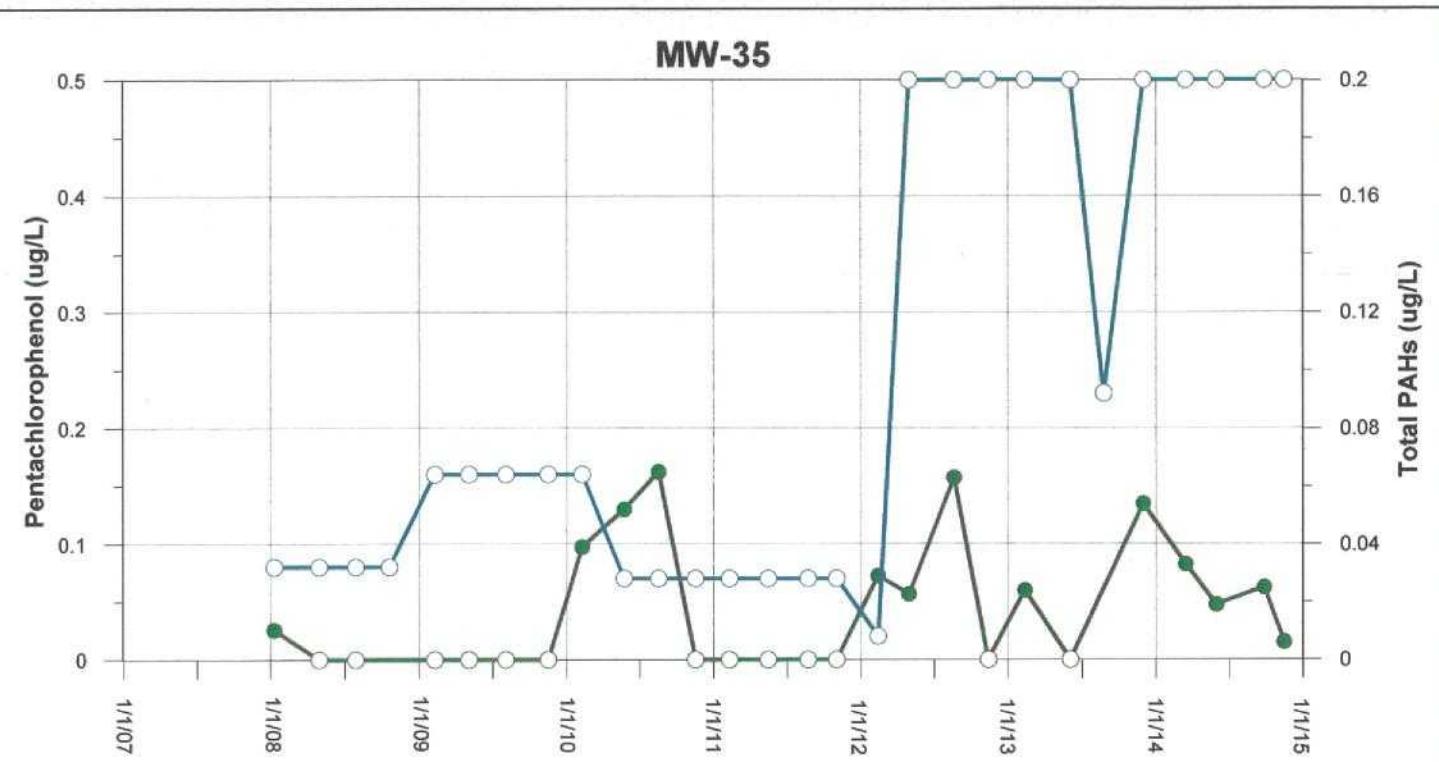
Notes:

ug/L = microgram per liter

FIGURE C-10
Pentachlorophenol Groundwater
Concentrations in MW-31 and MW-32
Former J.H. Baxter Wood Treating Facility
Arlington, Washington







Legend:

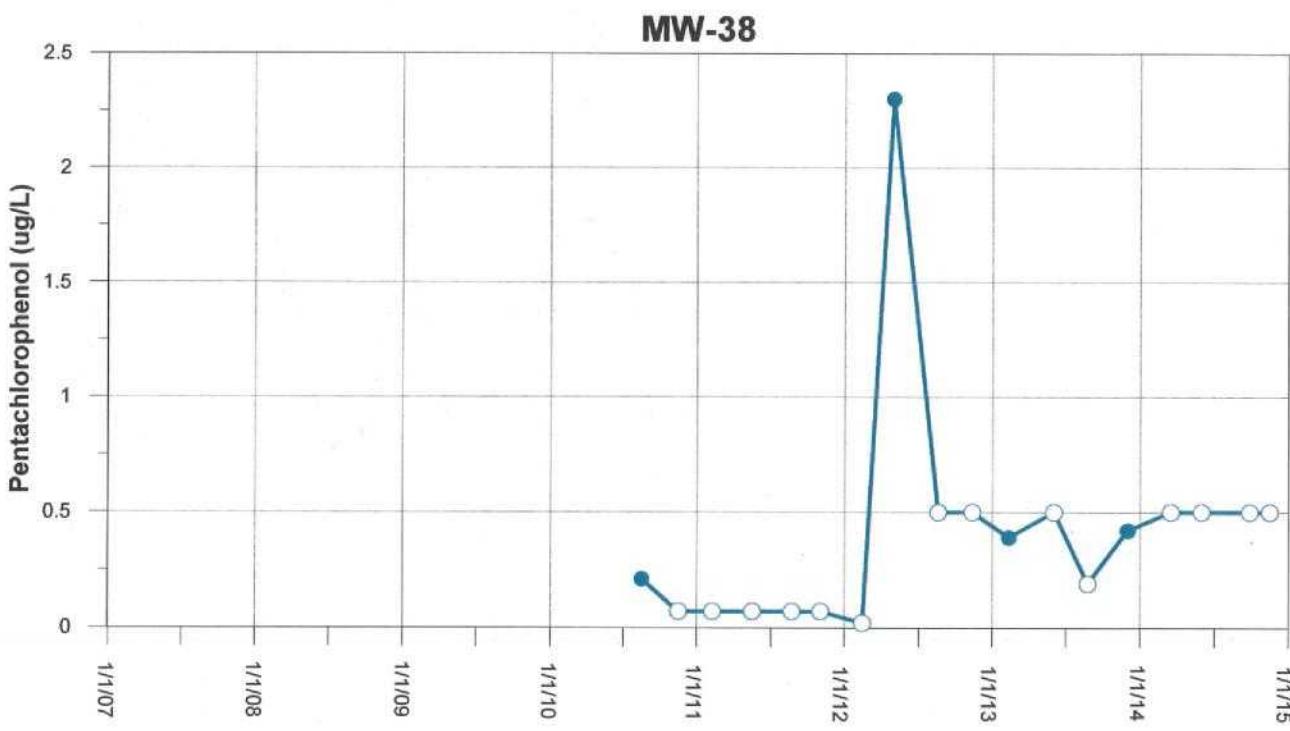
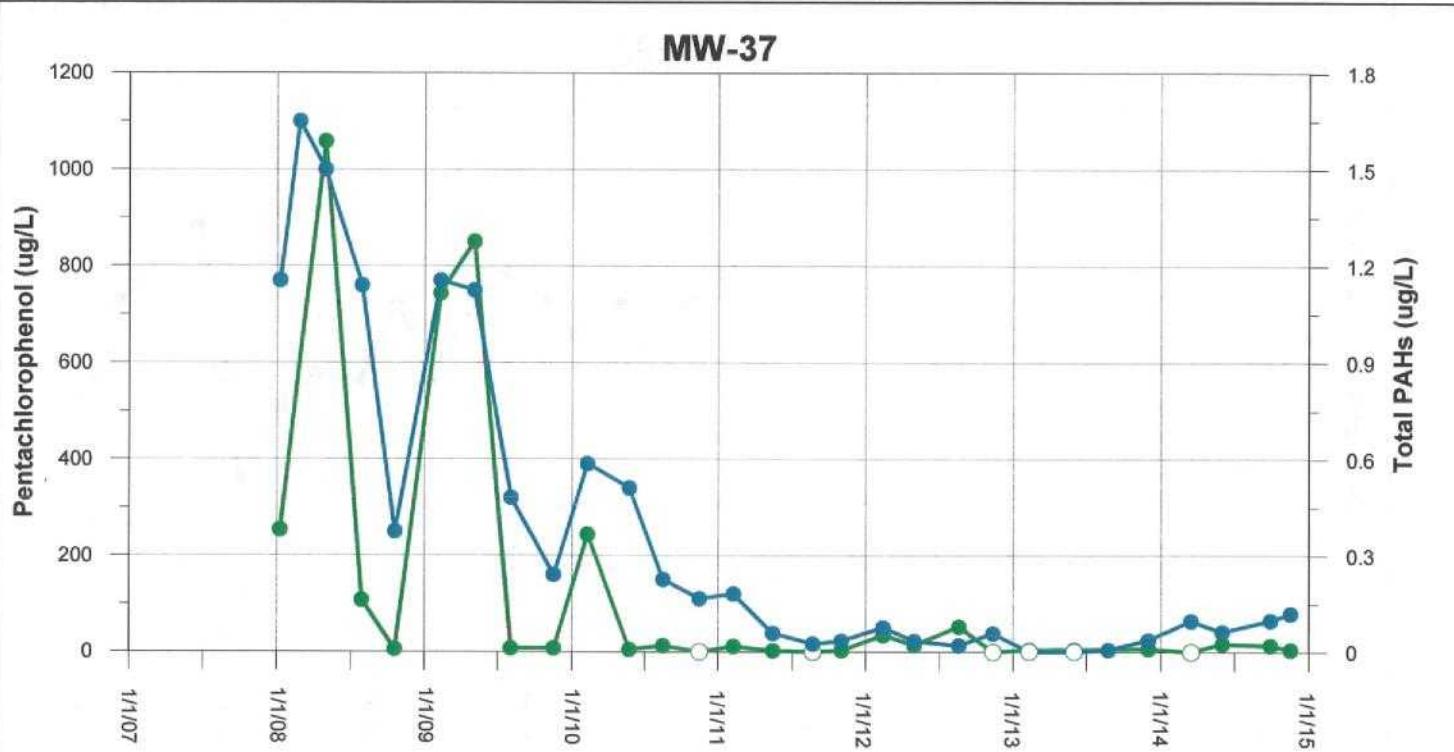
- Pentachlorophenol Detected Values
- Pentachlorophenol Non-Detected Values
- Total PAHs Detected Values
- Total PAHs Non-Detected Values

Notes:

ug/L = microgram per liter

Total polycyclic aromatic hydrocarbons (PAHs) equals the sum of detected analytes (ND = 0).

FIGURE C-12
Pentachlorophenol and Total PAHs Groundwater Concentrations in MW-35 and MW-36
Former J.H. Baxter Wood Treating Facility
Arlington, Washington



PAHs not analyzed in MW-38

Legend:

- Pentachlorophenol Detected Values
 - Pentachlorophenol Non-Detected Values
 - Total PAHs Detected Values
 - Total PAHs Non-Detected Values

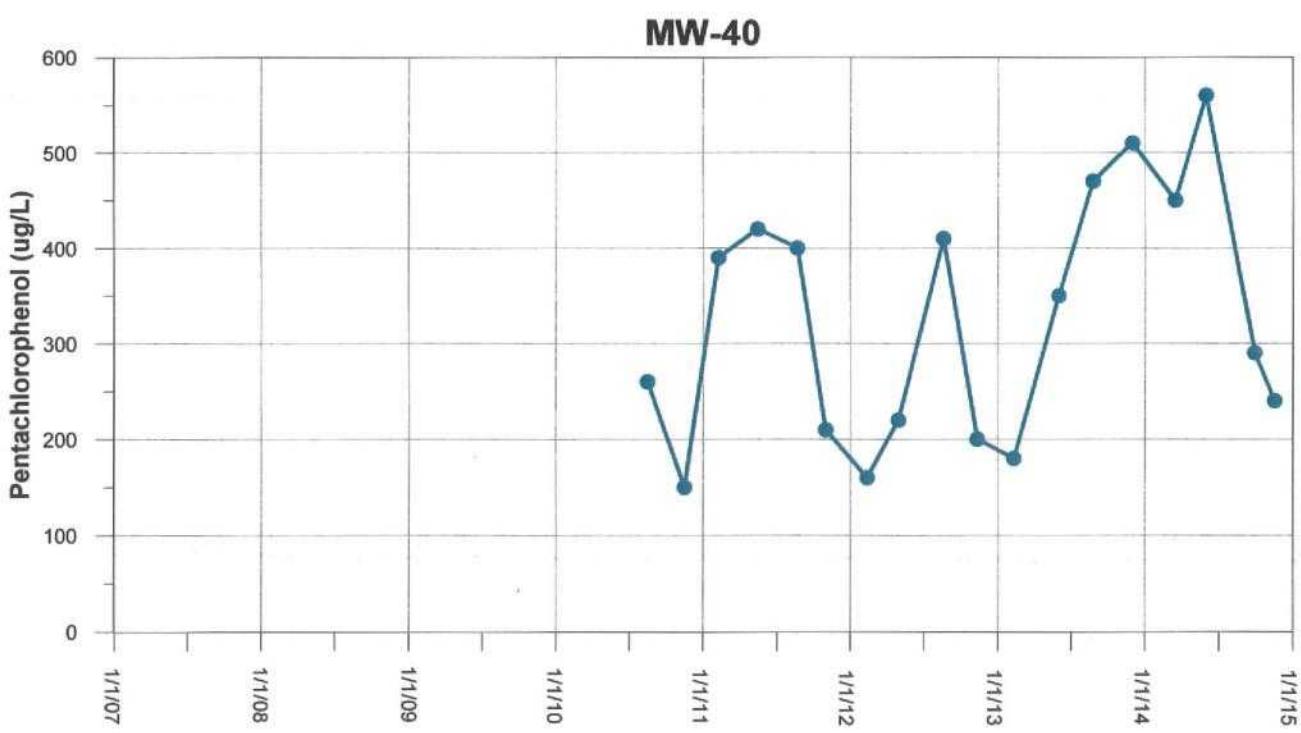
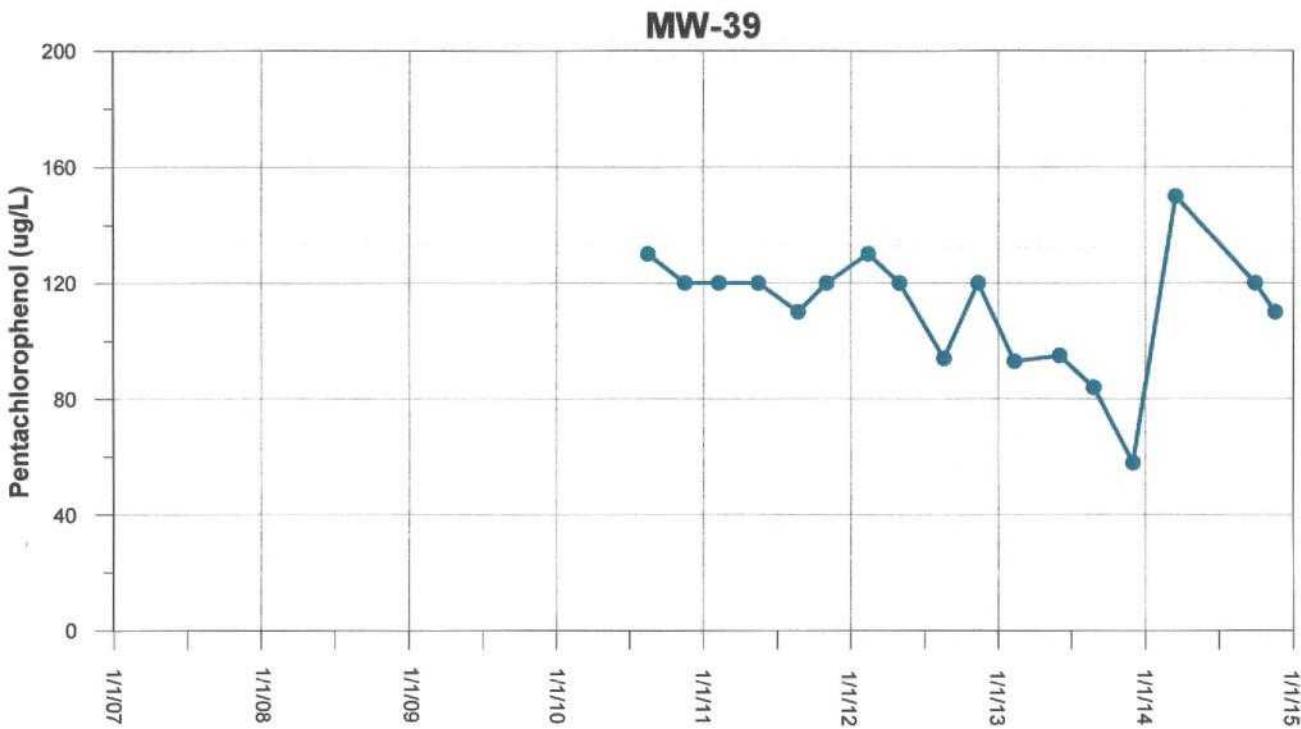
Notes:

ug/L = microgram per liter

Total polycyclic aromatic hydrocarbons (PAHs) equals the sum of detected analytes (ND = 0).

FIGURE C-13
Pentachlorophenol and Total PAHs Groundwater Concentrations in MW-37 and MW-38
Former J.H. Baxter Wood Treating Facility
Arlington, Washington





Legend:

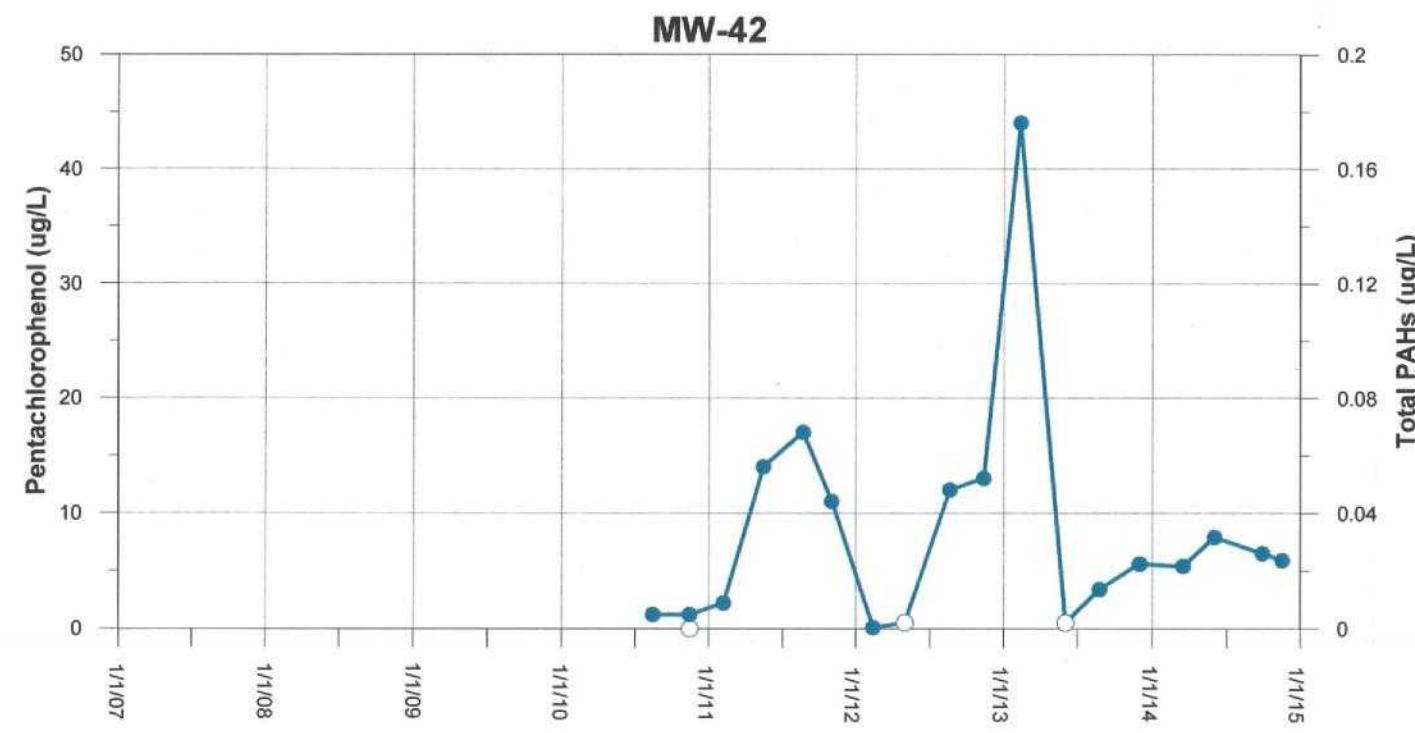
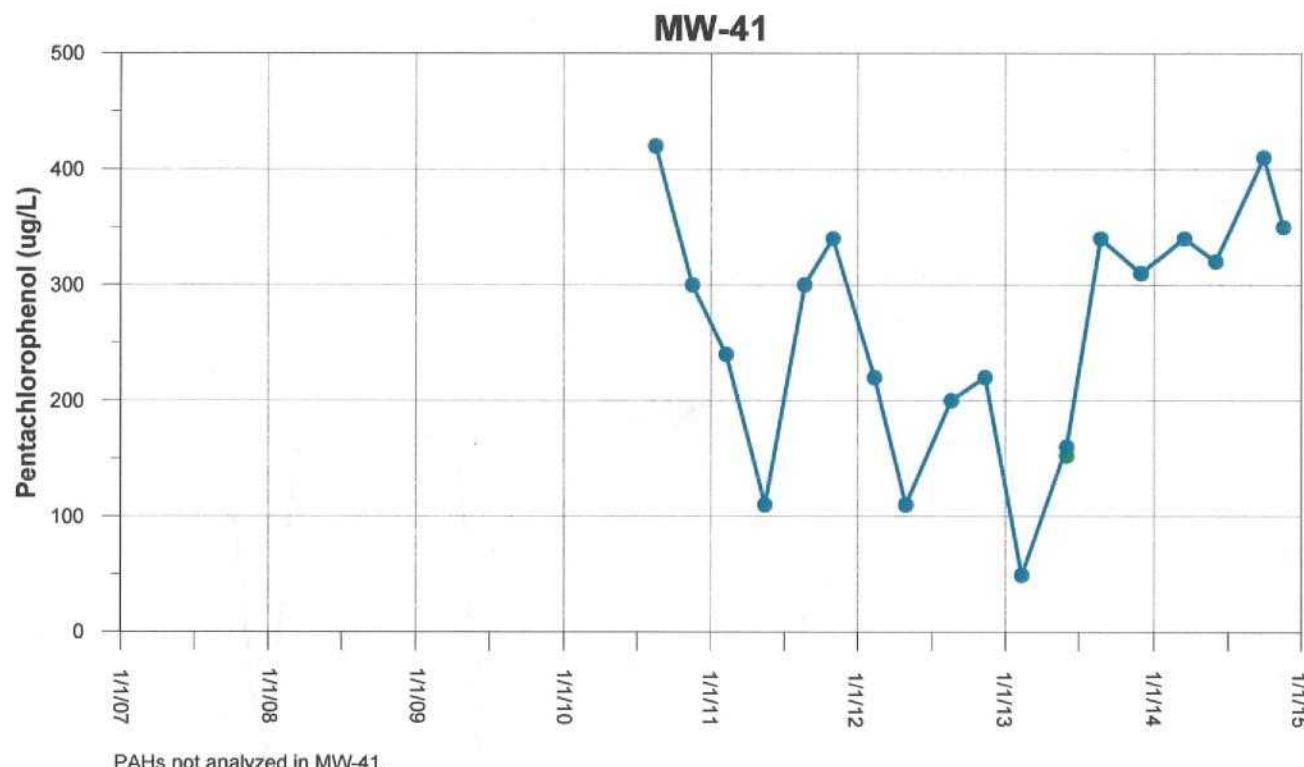
- Pentachlorophenol Detected Values
 - Pentachlorophenol Non-Detected Values

FIGURE C-14
**Pentachlorophenol Groundwater
 Concentrations in MW-39 and MW-40
 Former J.H. Baxter Wood Treating Facility
 Arlington, Washington**



Notes:

Note: $\mu\text{g/L}$ = microgram per liter



Legend:

- Pentachlorophenol Detected Values
- Pentachlorophenol Non-Detected Values
- Total PAHs Detected Values
- Total PAHs Non-Detected Values

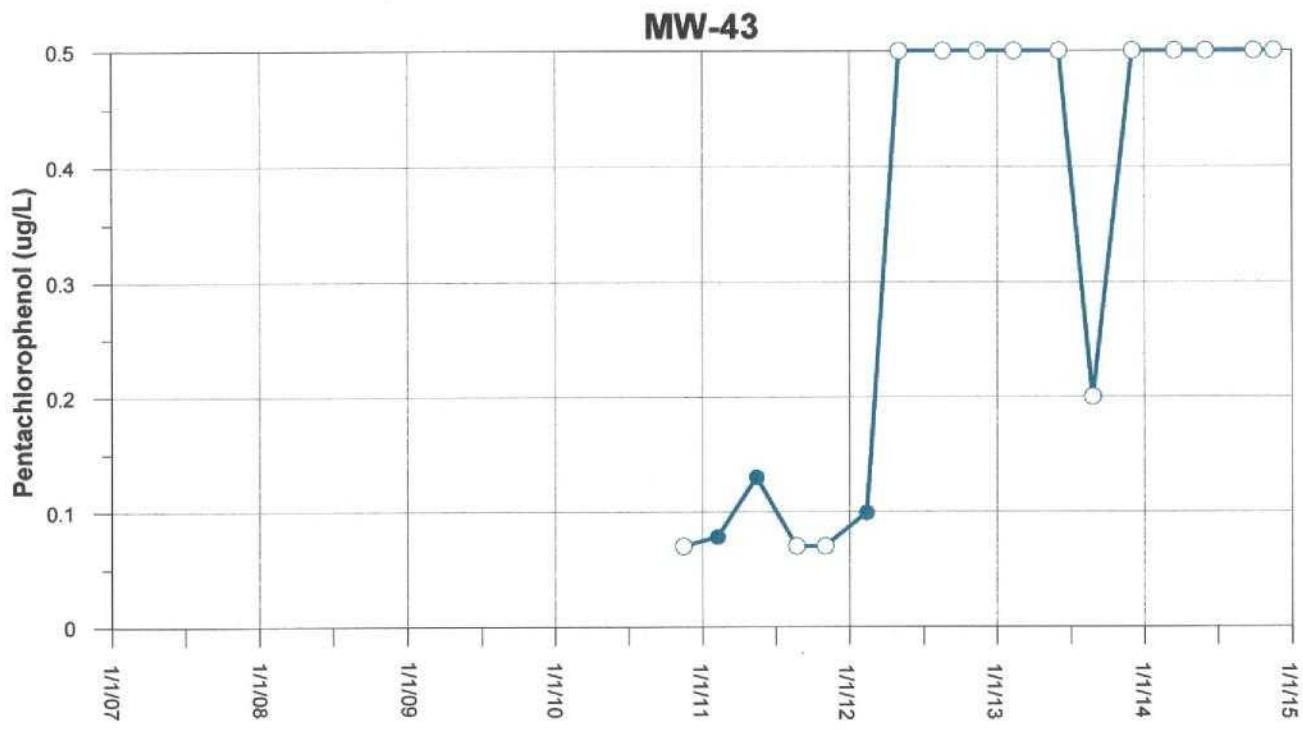
Notes:

ug/L = microgram per liter

Total polycyclic aromatic hydrocarbons (PAHs) equals the sum of detected analytes (ND = 0).

FIGURE C-15
Pentachlorophenol and Total PAHs Groundwater Concentrations in MW-41 and MW-42
Former J.H. Baxter Wood Treating Facility
Arlington, Washington





Legend:

- Pentachlorophenol Detected Values
 - Pentachlorophenol Non-Detected Values

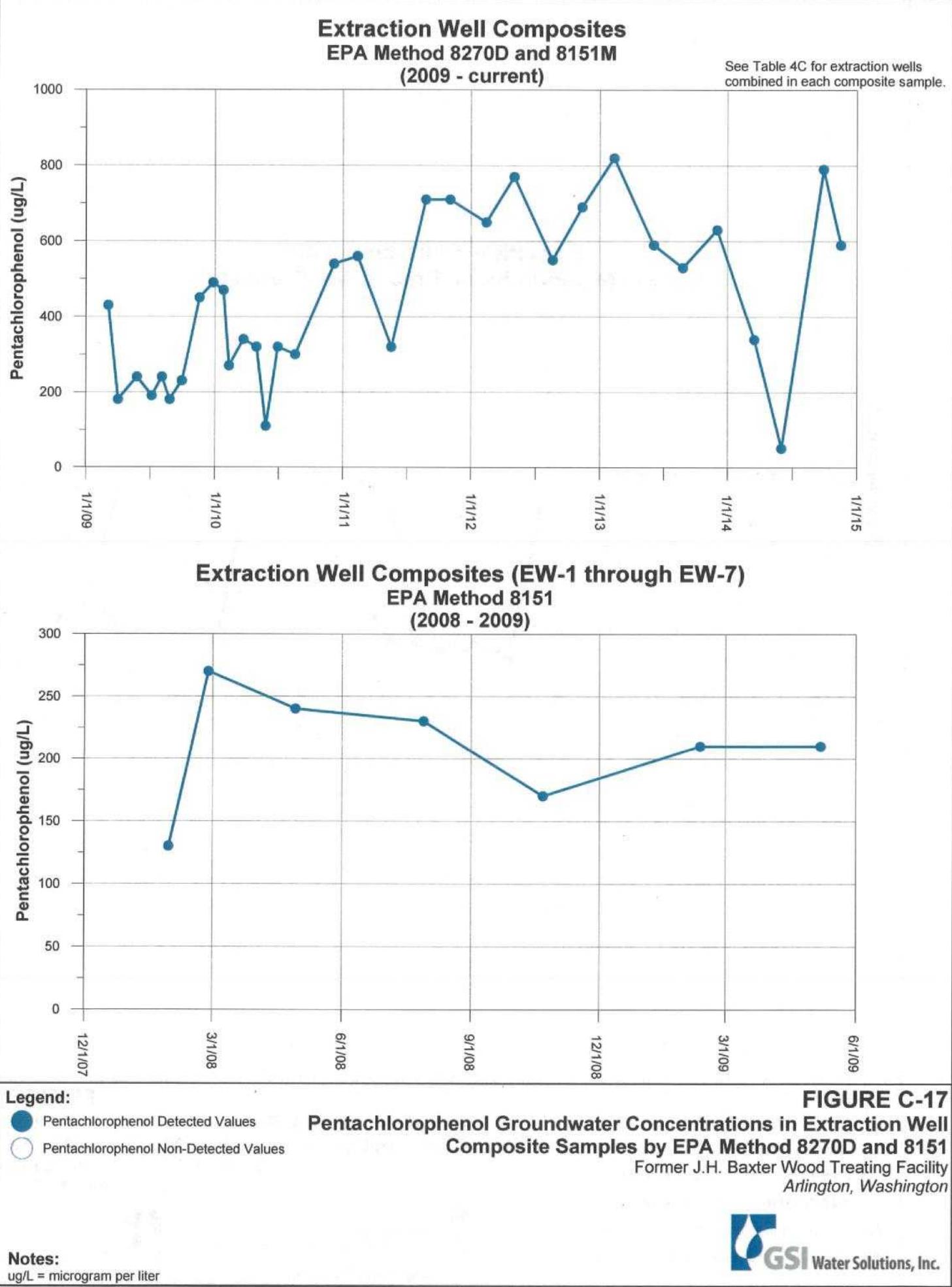
Pentachlorophenol Groundwater Concentrations in MW-43

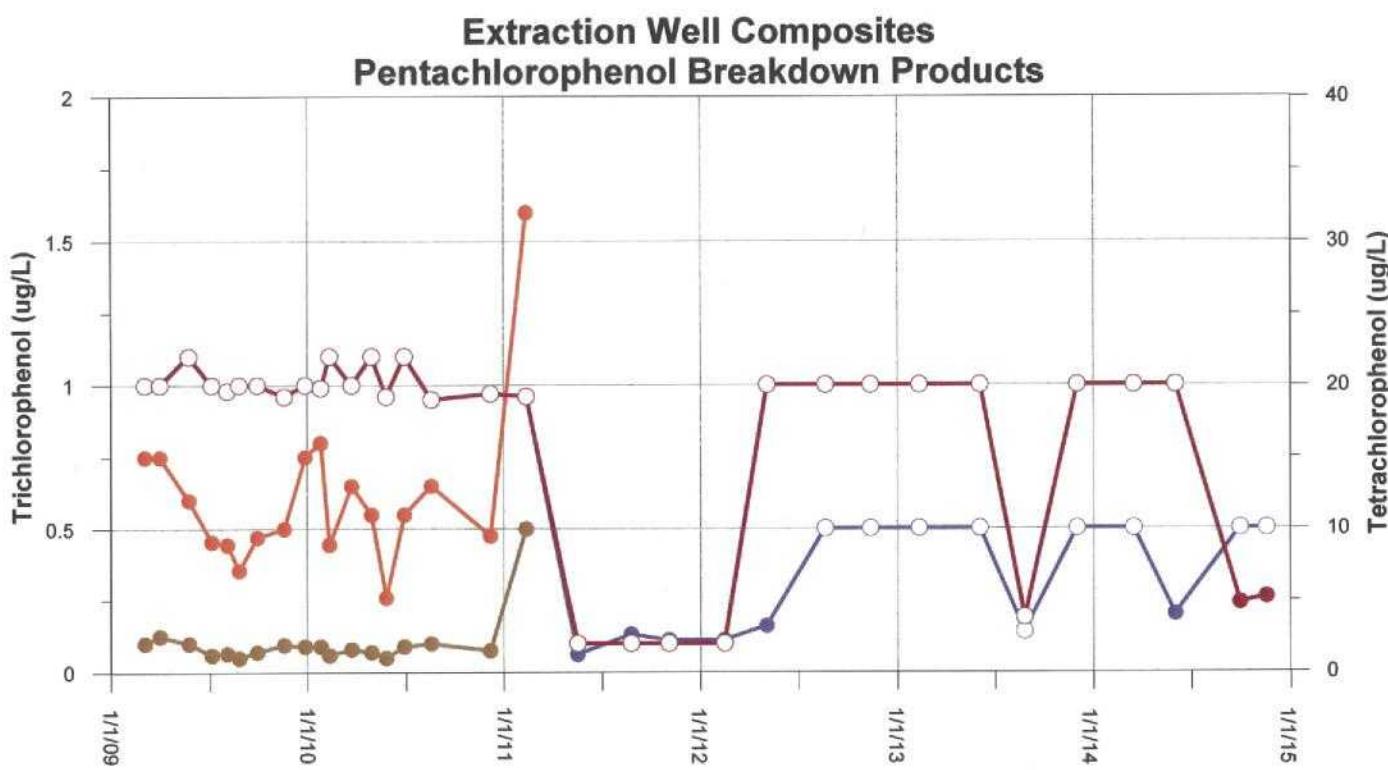
**Former J.H. Baxter Wood Treating Facility
Arlington, Washington**

Notes:

Note:
ug/L = microgram per liter






Legend:

- 2,4,5-Trichlorophenol Detected Values
- 2,4,5-Trichlorophenol Non-Detected Values
- 2,4,6-Trichlorophenol Detected Values
- 2,4,6-Trichlorophenol Non-Detected Values
- 2,3,4,6-Tetrachlorophenol Detected Values
- 2,3,5,6-Tetrachlorophenol Detected Values

FIGURE C-18
**Pentachlorophenol Breakdown Products Groundwater
Concentrations in Extraction Well Composite Samples**
 Former J.H. Baxter Wood Treating Facility
 Arlington, Washington

Notes:

ug/L = microgram per liter
 Analyzed by EPA Method 8270D and 8151M
 See Table 4C for extraction wells combined
 in each composite sample



Appendix D



55 SW Yamhill Street, Suite 300 Portland, OR 97204

P: 503.239.8799 F: 503.239.8940

info@gsiws.com www.gsiws.com

Laboratory Data Validation Memorandum

Site Investigation - Supplemental Groundwater Sampling and Remedial Action

Fourth Quarter 2014 - Pilot Study Performance Monitoring

Former J.H. Baxter & Co. Wood Treating Facility

Arlington, Washington

Prepared for:

J.H. Baxter & Co.

85 N. Baxter Road

P.O. Box 10797

Eugene, OR 97440

Prepared by:

GSI Water Solutions, Inc.

55 SW Yamhill Street, Suite 300

Portland, OR 97204

March 2015



Table of Contents

Acronyms.....	iv
1 Introduction.....	1
2 Data Validation Methodology.....	1
3 Qualifiers and Reason Codes Applied During Validation.....	2
3.1 Qualifiers.....	2
3.2 Reason Codes	3
4 Validation of Custody, Preservation, and Completeness.....	3
5 Validation of Laboratory Analytical Data	4
5.1 Pentachlorophenol and Breakdown Products by EPA Method 8151A Modified.....	4
5.1.1 Holding Times	4
5.1.2 Instrument Calibration	4
5.1.3 Blank Analyses	4
5.1.4 Surrogate Analysis.....	5
5.1.5 Laboratory Control Sample Analyses.....	5
5.1.6 Matrix Spike/Matrix Spike Duplicate Analyses	5
5.1.7 Field Duplicate Sample Analyses	5
5.1.8 Laboratory Reporting Limits	6
5.1.9 Confirmation Results	6
5.1.10 Data Reporting and Additional Analytical Method Qualifications	6
5.2 Polycyclic Aromatic Hydrocarbons by EPA Method 8270D SIM	6
5.2.1 Holding Times	6
5.2.2 Instrument Tuning and Mass Calibration	7
5.2.3 Initial Calibration	7
5.2.4 Initial Calibration Verification.....	7
5.2.5 Continuing Calibration Verification	7
5.2.6 Blank Analyses	7
5.2.7 Surrogate Analysis.....	8
5.2.8 Internal Standard Evaluation.....	8
5.2.9 Laboratory Control Sample Analyses.....	8
5.2.10 Matrix Spike/Matrix Spike Duplicate Analyses	8
5.2.11 Field Duplicate Sample Analyses	8

FOURTH QUARTER 2014 LABORATORY DATA VALIDATION MEMORANDUM
PILOT STUDY PERFORMANCE MONITORING, FORMER J.H. BAXTER & CO. WOOD TREATING FACILITY ARLINGTON, WASHINGTON

5.2.12	Laboratory Reporting Limits	8
5.2.13	Data Reporting and Additional Analytical Method Qualifications	9
6	Overall Assessment of Data Usability	9
7	References.....	9

Tables

- Table D-1 Field Samples Submitted with Corresponding Laboratory Identifications
Table D-2 Field Duplicate Detections
Table D-3 Qualifiers Added or Modified During Validation

Acronyms

%D	percent difference
%drift	percent drift
ALS	ALS Environmental
CCV	continuing calibration verification
CLP	Contract Laboratory Program
COC	chain of custody
EPA	U.S. Environmental Protection Agency
GC/MS	gas chromatography/mass spectrometry - gas chromatographer/mass spectrometer
GSI	GSI Water Solutions, Inc.
ICAL	initial calibration
ICV	initial calibration verification
IS	internal standards
ID	identification
LCS	laboratory control sample
LCSD	laboratory control sample duplicate
MDL	method detection limit
MS	matrix spike
MSD	matrix spike duplicate
PAH	polycyclic aromatic hydrocarbon
PCP	pentachlorophenol
QC	quality control
RL	reporting limit
RPD	relative percent difference
RRF	relative response factor
RSD	relative standard deviation
SADMP	Sampling and Analysis and Data Management Plan
SIM	selective ion monitoring

the first time in the history of the world, the
whole of the human race has been gathered
together in one place.

—*John Wesley*

“The world is a book, and those who do not travel far read only a page.”

—*Saint Augustine*

“The world is a book, and those who do not travel far read only a page.”

—*Saint Augustine*

“The world is a book, and those who do not travel far read only a page.”

—*Saint Augustine*

“The world is a book, and those who do not travel far read only a page.”

—*Saint Augustine*

“The world is a book, and those who do not travel far read only a page.”

—*Saint Augustine*

“The world is a book, and those who do not travel far read only a page.”

—*Saint Augustine*

“The world is a book, and those who do not travel far read only a page.”

—*Saint Augustine*

“The world is a book, and those who do not travel far read only a page.”

—*Saint Augustine*

“The world is a book, and those who do not travel far read only a page.”

—*Saint Augustine*

1 Introduction

GSI Water Solutions Inc. (GSI), performed a data validation of the analytical laboratory activities conducted for groundwater samples collected at the former J.H. Baxter & Co. Arlington, Washington, wood-treating facility (the facility) in the fourth quarter 2014. Thirty-three groundwater samples (including two duplicates), a composite extraction well sample, and one field blank rinsate sample were collected on November 16 and 17, 2014, as part of the facility's *Remedial Action Pilot Study Performance Monitoring Plan* (Baxter, 2007). The samples were submitted to ALS Environmental (ALS) located in Kelso, Washington, where they were analyzed for pentachlorophenol (PCP) and/or breakdown products by Modified U.S. Environmental Protection Agency (EPA) Method 8151A and, in select samples, for polycyclic aromatic hydrocarbons (PAH) by EPA Method 8270-selective ion monitoring (SIM). Table D-1 provides a list of the field and laboratory sample identifications (ID), sample collection dates, and individual sample analyses conducted for the samples reviewed in this memorandum.

2 Data Validation Methodology

In agreement with Appendix B (Sampling and Analysis Data Management Plan [SADMP], Revision 2) of the Site Investigation Work Plan, this data validation memorandum was prepared in general accordance with the following documents:

- Baxter. 2002. Sampling and Analysis and Data Management Plan for the Site Investigation Work Plan J.H. Baxter Arlington Facility (SADMP).
- EPA. 1999. USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Organic Data Review, EPA-540-R-99-008. October 1999.
- EPA. 2002. Guidance on Environmental Data Verification and Data Validation. US EPA QA/G-8. November 2002.
- EPA. 2014. EPA CLP National Functional Guidelines for Superfund Organic Methods Data Review, EPA-540-R-014-002. August 2014.

The EPA CLP guidelines have been modified for this data review where they differ from method-specific quality control (QC) requirements. In general, the data validation review outline provided in Section D2 of the SADMP was followed, and laboratory analytical reports and supporting documentation were reviewed to assess the following elements:

- Data package and electronic data deliverable completeness
- Chain-of-custody (COC) – completeness and continuous custody
- Proper sample preservation and holding times achieved
- Instrument tuning, calibration, and performance criteria achieved
- Field and laboratory blanks conducted at proper frequency and free of contamination
- Field and laboratory duplicates, matrix spikes (MS)/matrix spike duplicates (MSD), and laboratory control samples (LCS)/laboratory control sample duplicates (LCSD) analyzed at proper frequency and control limits achieved

- Surrogate compound and internal standard analyses performed and recoveries within accuracy control limits
- Required detection limits achieved

The format for this data validation review memorandum and associated tables is consistent with past data validation memoranda/quality assurance reviews as the previous reports for ease of comparison to previous quarterly memoranda.

Although this data validation memorandum includes a review of the QC results provided in laboratory analytical reports and reported on QC summary forms, it does not include a review of the raw analytical data to confirm reported concentrations and analyte identification.

3 Qualifiers and Reason Codes Applied During Validation

Qualifier flags may be applied to data during the validation process if it is determined that certain QC elements have not been achieved.

3.1 Qualifiers

Data qualifiers and definitions are consistent with the EPA CLP *National Functional Guidelines for Superfund Organic Methods Data Review* and previous data validation memoranda. Specifically, the qualifiers that may be applied during this validation process are as follows:

- J The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- J+ The result is an estimated quantity, but the result may be biased high.
- J- The result is an estimated quantity, but the result may be biased low.
- N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
- NJ The analysis indicates the presence of an analyte that has been “tentatively identified” or “presumptively” as present, and the associated numerical value is the estimated concentration in the sample.
- R The sample result is rejected because of serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample.
- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may be inaccurate or imprecise.

3.2 Reason Codes

Reason codes are applied with qualifiers to identify the data validator's justification for assigning a particular qualifier flag. The following reason codes are consistent with laboratory data qualifiers and previous data validation review memoranda.

- DL The analyte was detected at a concentration greater than the method detection limit (MDL), but lower than the reporting limit (RL).
- LC Low continuing calibration verification (CCV) recovery. Analytical result may be biased low.
- HC High CCV recovery. Analytical result may be biased high.
- MB The analyte was detected in the sample and the associated laboratory/method blank. The concentration detected in the sample was less than 5 times the concentration detected in the blank.
- MI Matrix interference prevented adequate resolution of the target compound at the normal limit.
- SC The relative percent difference (RPD) between results from the primary and confirmation columns is greater than 40 percent.
- RB The analyte was detected in the sample and the associated rinsate blank. The concentration detected in the sample was less than 5 times the concentration detected in the blank.

4 Validation of Custody, Preservation, and Completeness

Sample custody was maintained as required from sample collection to receipt at ALS. Sample custody seals were on all sample coolers and were intact at the time of receipt to the laboratory. The samples were received intact and properly preserved according to the requirements of the SADMP. Sample cooler temperatures were less than the EPA-recommended maximum of 6°Celcius (C), and samples were stored in a 4°C refrigerator upon receipt. The laboratory reports are complete and contain results for the samples and tests requested on the COCs with one exception:

- The COC associated with laboratory report number K1413049 indicates that the field rinsate blank and sample MW-3 are to be tested for PCP via EPA Method 8151A Modified and pH via SM 4500-H+B. This is an error. Both samples were to be tested for PCP via EPA 8151A Modified *and* PAHs via EPA Method 8270D-SIM. ALS notes this error on the COC, and correct analyses were performed for these samples.

5 Validation of Laboratory Analytical Data

All 35 samples were analyzed for PCP and/or breakdown products via EPA Method 8151A Modified, and 14 of the 35 samples were analyzed for PAHs via EPA Method 8270D-SIM. Findings from the review of laboratory data generated during the two analytical method analyses are presented below.

5.1 Pentachlorophenol and Breakdown Products by EPA Method 8151A Modified

5.1.1 Holding Times

In accordance with the SADMP-specified holding times, samples analyzed for PCP were extracted within 7 days from the time of collection, and sample extracts were analyzed within 40 days from the time of extraction.

5.1.2 Instrument Calibration

5.1.2.1 Initial Calibration

Initial calibration (ICAL) criteria were achieved. Coefficients of determination were greater than the control criteria of 0.99, and relative standard deviations (RSD) were less than the SADMP-specified maximum of 25 percent.

5.1.2.2 Initial Calibration Verification

Initial calibration verifications (ICV) or second source calibration verification analyte recoveries associated with the PCP analysis were within the SADMP-specified limit of ± 20 percent difference (%D) or percent drift (%drift) of the ICAL. The %D is used when performing average response factor model calibration and the %drift is used when calibrating using a regression fit model.

5.1.2.3 Continuing Calibration Verification

Continuing calibration verification (CCV) recoveries associated with the PCP analysis were within the control criteria limit of ± 20 %D or %drift of the initial calibration, with the following exceptions:

- Two CCV recoveries of 2,3,4,5-tetrachlorophenol were above control criteria at 21%D and 21%drift in the primary or confirmation columns associated with the analysis of sample EW 2-4 Composite. Additionally, the %D for 2,4,6-trichlorophenol and 2,4,5-trichlorophenol were at 29 percent and 27 percent, respectively, in one confirmation column CCV recovery associated with the analysis of sample EW 2-4. ALS states in the case narrative that sample results were reported from the column with an acceptable CCV, and the data quality was not affected.

5.1.3 Blank Analyses

5.1.3.1 Laboratory/Method Blanks

Laboratory or method blanks were analyzed at the required frequency of one per extraction batch of 20 or fewer samples. Method blanks were free of target analytes, with one exception:

- The analyte 2,4,5-trichlorophenol was detected within the method blank processed with sample EW 2-4 Composite at a concentration of 0.26 microgram per liter ($\mu\text{g}/\text{L}$) between the MDL and RL. However, the analyte was not detected within the confirmation result of the method blank, and the RPD between the two results was greater than 40 percent. The analyte 2,4,5-trichlorophenol was not detected in sample EW 2-4 Composite, and the data are not further qualified.

5.1.3.2 Field Rinsate Blanks

Target analytes were not detected in the field rinsate blank above RLs or MDLs.

5.1.4 Surrogate Analysis

The surrogate compound, 4-bromo-2,6-dichlorophenol, was added to all field samples, blanks, and QC samples during the analysis of PCP. Recoveries of the surrogate compound were within the SADMP-specified and laboratory-specified control limits.

5.1.5 Laboratory Control Sample Analyses

ALS reported LCS/LCSDs at the required frequency of one per extraction batch of 20 or fewer samples. Recovery percentages and RPD values were within control limits with one exception:

- The percent recovery of total tetrachlorophenols in the LCS associated with sample EW 2-4 Composite was slightly below laboratory control limits at 68 percent recovery. ALS reports that “based on the method and historic data, the recoveries observed were in the range expected for this procedure.” No other anomalies associated with the analysis of these samples were observed, and no further corrective action was taken to qualify the data.

5.1.6 Matrix Spike/Matrix Spike Duplicate Analyses

MS and MSD samples were processed from samples EW 2-4 Composite and MW-36. Recovery percentages and RPD values were compared to the applicable SADMP and laboratory control limits. Recovery percentages and RPD values outside of acceptance criteria were as follows:

- PCP recoveries were far below expected values at -2,031 and -2,267 percent of the spiked recovery in the MS/MSD analysis performed with sample EW 2-4 Composite. However, the background PCP concentration in the unspiked sample was more than 50 times greater than the spike concentration of 10 $\mu\text{g}/\text{L}$, preventing accurate evaluation of the spike recovery. It is not possible to evaluate data usability for this analyte based on MS/MSD recoveries.
- PCP recoveries were above expected values at 308 and 320 percent in the MS/MSD samples processed from sample MW-36. The background PCP concentration in the unspiked sample was more than 10 times the spike concentration of 10 $\mu\text{g}/\text{L}$, preventing accurate evaluation of the spike recovery.

5.1.7 Field Duplicate Sample Analyses

Field duplicate pairs, MW-24/MW-45 and BXS-1/BXS-5, were processed during the analysis for PCP. Concentrations of pentachlorophenol detected in the field duplicate pairs are summarized

in Table D-2. The RPDs between the primary and duplicate samples were within the SADMP-specified control limit of 35 percent or less.

5.1.8 Laboratory Reporting Limits

Reporting limit requirements were met for undiluted samples with the following exception:

- Given elevated levels of target analytes, some RLs were elevated in sample EW 2-4 Composite. RLs of 1.0 µg/L for the analytes 2,4,5-trichlorophenol and total tetrachlorophenols were above the SADMP-specified goals of 0.5 µg/L. The detected concentration of total tetrachlorophenol (27 µg/L) was greater than the elevated RL, and data usability is not affected. The analyte 2,4,5-trichlorophenol was not detected above the elevated RL of 1.0 µg/L; this data point is usable, but qualified (UJ-MI) to indicate that because of matrix interference, the sample quantitation limit may represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

5.1.9 Confirmation Results

Analytical results were collected from a primary and confirmation column during the analysis of PCP and associated breakdown products by EPA Method 8151A Modified. The RPDs between analytical results from the primary and confirmation columns were less than the laboratory-specified 40 percent limit, with the following exception:

- The RPD between 2,4,5-trichlorophenol results in the laboratory blank processed during the analysis of sample EW 2-4 Composite exceeded control criteria. The analyte was detected at an estimated concentration of 0.26 µg/L (between the MDL and RL) in the primary column, but was not detected in the confirmation column. As the difference between these two results is less than the RL and because the analyte 2,4,5-trichlorophenol was not detected in sample EW 2-4 Composite, the results are not further qualified.

5.1.10 Data Reporting and Additional Analytical Method Qualifications

ALS assigned "J" qualifier flags to detected results falling between the MDL and RL. GSI agrees that these results should be qualified as estimated values given their detection below RLs (J-DL).

5.2 Polycyclic Aromatic Hydrocarbons by EPA Method 8270D-SIM

5.2.1 Holding Times

In accordance with the SADMP-specified holding times, samples analyzed for PAHs were extracted within 7 days from the time of collection, and sample extracts were analyzed within 40 days from the time of extraction.

5.2.2 Instrument Tuning and Mass Calibration

The compound decafluorotriphenylphosphine was used to tune the GC/MS before the ICAL and for each 12-hour analytical shift. ALS reports that all relative abundance criteria met method-specified limits.

5.2.3 Initial Calibration

The average relative response factors (RRF) were greater than the SADMP-specified minimum of 0.1, and RSDs were less than the SADMP-specified (< 25 percent) or laboratory-specified (< 20 percent) control limits.

5.2.4 Initial Calibration Verification

The ICV analyte recoveries associated with the analysis of PAHs were within the SADMP-specified limits of $\pm 20\text{ \%D}$ of the ICAL.

5.2.5 Continuing Calibration Verification

The CCV recoveries associated with the analysis of PAHs were within control criteria limits of $\pm 20\text{ \%D}$ of the ICAL with one exception:

- One CCV recovery of Indeno(1,2,3-cd)pyrene was at 25 %D of the ICAL. ALS reports that in accordance with the EPA Method, 80 percent or more of the CCV analytes must have passed within 20 percent of the true value. The remaining analytes are allowed a 40 percent difference as per the ALS standard operating procedure. The CCV met these criteria, and no further corrective action was required. Indeno(1,2,3-cd)pyrene was detected in sample MW-36 at a concentration of 0.0048 $\mu\text{g/L}$ between the MDL and RL. GSI qualified the data point as “tentatively identified” because of its detection below the RL and the potential high bias associated with the high CCV recovery (NJ-DL,HC).

5.2.6 Blank Analyses

5.2.6.1 Laboratory/Method Blanks

A method blank was analyzed at the required frequency of 1 per extraction batch of 20 or fewer samples. The method blank was free of target analytes, with one exception:

- The analyte benz(a)anthracene was detected within the method blank at a concentration of 0.0026 $\mu\text{g/L}$ between the MDL and RL. For associated field samples with detections of benz(a)anthracene less than 5 times the method blank concentration, sample detections were flagged (U-MB) to indicate that the concentration could not be distinguished from potential background contamination associated with the method analysis. This qualifier was applied to samples BXS-5, MW-30, MW-36, MW-3, and MW-18. In accordance with EPA CLP *National Functional Guidelines for Superfund Organic Methods Data Review*, for any analytes detected in method blanks below RLs, associated sample results that are below RLs should be reported at the RL. Any associated sample result above the RL, but less than 5 times the method blank concentration, is reported as is, but qualified as a non-detect value.

5.2.6.2 Field Rinsate Blanks

Target analytes were not detected in the field rinsate blank at concentrations above reporting limits, with the following exception:

- Naphthalene was detected at a concentration of 0.0095 µg/L in the field rinsate blank between the MDL and RL. For associated field samples with detections of naphthalene less than 5 times the field rinsate blank concentration, sample detections were flagged (U-RB) to indicate that the concentration could not be distinguished from potential contamination associated with the sample collection process. This qualifier was applied to samples BXS-1, BXS-2, BXS-5, MW-35, MW-36, MW-37, MW-15, MW-16, MW-17, MW-18, and MW-2. In accordance with EPA CLP *National Functional Guidelines for Superfund Organic Methods Data Review*, for any analytes detected in method blanks below RLs, associated sample results that are below RLs should be reported at the RL. Any associated sample result above the RL, but less than 5 times the field blank concentration, is reported as is, but qualified as a non-detect value.

5.2.7 Surrogate Analysis

Surrogate compounds fluorene-d₁₀, fluoranthene-d₁₀, and terphenyl-d₁₄ were added to all field samples, blanks, and QC samples during the analysis of PAHs. Surrogate recoveries were within the SADMP-specified and laboratory-specified control limits.

5.2.8 Internal Standard Evaluation

Internal standards (IS) were added to all samples, blanks, and QC samples as required. All IS recoveries were within the SADMP-specified 50 to 100 percent limits.

5.2.9 Laboratory Control Sample Analyses

ALS processed and analyzed LCS/LCSDs at the required frequency of 1 per extraction batch of 20 or fewer samples. LCS/LCSD recoveries and RPD values were within SADMP-specified criteria and/or laboratory control limits for analytes not listed in the SADMP.

5.2.10 Matrix Spike/Matrix Spike Duplicate Analyses

MS/MSDs were not processed during the analysis of PAH samples from this project because of insufficient sample volume. The laboratory provided LCS and LCSD data to demonstrate acceptable analytical precision and accuracy.

5.2.11 Field Duplicate Sample Analyses

Field duplicate pairs, BXS-1/BXS-5, were processed during the analysis of PAHs. Concentrations of PAHs detected in the field duplicate pairs are summarized in Table D-2. The RPDs between the primary and duplicate samples were less than the SADMP-specified maximum limit of 35 percent or the difference between detected results was less than the RL value.

5.2.12 Laboratory Reporting Limits

All reporting limit goals were met during the analysis of PAHs.

5.2.13 Data Reporting and Additional Analytical Method Qualifications

ALS assigned “J” qualifier flags to detected results falling between the MDL and RL. GSI agrees that these results should be qualified as estimated values because of their detection below RLs. However, in instances where these detections were less than five times that of a detection within an associated method or field blank, GSI changed the qualifier to a “U” flag as noted in Section 5.2.6.

ALS reports that the result for acenaphthene (0.0059 µg/L) detected in sample BXS-2 may contain a slight high bias because of the presence of non-target background components. GSI qualified this value as “tentatively identified” given its low-level detection between the MDL and RL and the potential high bias because of matrix interference (NJ-DL,MI).

ALS reports that the detection limit for acenaphthene in sample BXS-5 is elevated because of the presence of non-target background components. The data point is usable, but is qualified (UJ-MI) to indicate that because of matrix interference, the sample quantitation limit may represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

6 Overall Assessment of Data Usability

The data are fully usable with the addition of the qualifiers specified in Sections 5.1 and 5.2. Qualifiers added or modified during data validation are summarized in Table D-3.

No data were rejected during the validation of analytical data. This achieves the SADMP-specified completeness goal of 95 percent usable data.

7 References

Baxter. 2002. Sampling and Analysis and Data Management Plan for the Site Investigation Work Plan J.H. Baxter Arlington Facility, Revision 2. Prepared by the J.H. Baxter Project Team for EPA Region 10. May 15, 2002.

Baxter. 2007. Remedial Action Pilot Study Performance Monitoring Plan. Prepared by the J.H. Baxter Project Team for EPA Region 10. September 2007.

EPA. 1996. Method 8151A, Chlorinated Herbicides by GC Using Methylation or Pentafluorobenzylation Derivitization, Revision 1. December 1996.

EPA. 1999. USEPA CLP National Functional Guidelines for Organic Data Review, EPA-540-R-99-008. October 1999.

EPA. 2001. Region 9 Superfund Data Evaluation/Validation Guidance, Version 1, R9QA/006.1, December 2001.

EPA. 2002. Guidance on Environmental Data Verification and Data Validation. US EPA QA/G-8. November 2002.

FOURTH QUARTER 2014 LABORATORY DATA VALIDATION MEMORANDUM
PILOT STUDY PERFORMANCE MONITORING, FORMER J.H. BAXTER & CO. WOOD TREATING FACILITY ARLINGTON, WASHINGTON

EPA. 2007. Method 8270D, Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS), Revision 4. February 2007.

EPA. 2014. EPA CLP National Functional Guidelines for Superfund Organic Methods Data Review, EPA-540-R-014-002. August 2014.

Table D-1. Field Samples Submitted with Corresponding Laboratory Identifications

J.H. Baxter & Co.

Arlington, Washington

Field Sample ID	Sample Date	ALS Sample ID	Notes
BXS-1	11/17/2014	K1413045-001	
BXS-2	11/17/2014	K1413045-002	
BXS-5	11/17/2014	K1413045-003	Field duplicate for BXS-1
MW-2	11/16/2014	K1413049-026	
MW-3	11/16/2014	K1413049-020	
HCMW-7	11/17/2014	K1413049-021	PCP only
MW-15	11/17/2014	K1413049-022	
MW-16	11/17/2014	K1413049-023	
MW-17	11/17/2014	K1413049-024	
MW-18	11/17/2014	K1413049-025	
MW-22	11/16/2014	K1413049-027	PCP only
MW-23	11/16/2014	K1413049-028	PCP only
MW-24	11/16/2014	K1413049-029	PCP only
MW-25	11/16/2014	K1413049-030	PCP only
MW-26	11/16/2014	K1413049-031	PCP only
MW-27	11/16/2014	K1413049-001	PCP only
MW-28	11/17/2014	K1413049-002	PCP only
MW-29	11/16/2014	K1413049-003	PCP only
MW-30	11/17/2014	K1413049-004	
MW-31	11/16/2014	K1413049-005	PCP only
MW-32	11/16/2014	K1413049-006	PCP only
MW-33	11/16/2014	K1413049-007	PCP only
MW-34	11/16/2014	K1413049-008	PCP only
MW-35	11/16/2014	K1413049-009	
MW-36	11/17/2014	K1413049-010	MS/MSD
MW-37	11/17/2014	K1413049-011	
MW-38	11/16/2014	K1413049-012	PCP only
MW-39	11/17/2014	K1413049-013	PCP only
MW-40	11/17/2014	K1413049-014	PCP only
MW-41	11/17/2014	K1413049-015	PCP only
MW-42	11/17/2014	K1413049-016	PCP only
MW-43	11/17/2014	K1413049-017	PCP only
MW-45	11/16/2014	K1413049-018	PCP only, field duplicate for MW-24
EW-2/EW-4	11/17/2014	K1413047-003	Lab composite, MS/MSD
Field Blank Rinsate	11/17/2014	K1413049-019	

Notes

ALS = ALS Environmental

MS/MSD = matrix spike/matrix spike duplicate

PCP = pentachlorophenol

Table D-2. Field Duplicate Detections

J.H. Baxter & Co.
Arlington, Washington

Sample IDs	Analyte	Unit	Reporting Limit	Primary Sample	Field Duplicate	Relative Percent Difference	Notes
BXS-1 & BXS-5	Anthracene	ug/L	0.019	0.0072 J	0.0083 J	14	
BXS-1 & BXS-5	Benzo(a)anthracene	ug/L	0.019	0.019 U	0.0032 J	142	1
BXS-1 & BXS-5	Fluorene	ug/L	0.019	0.019 U	0.0055 J	110	1
BXS-1 & BXS-5	Naphthalene	ug/L	0.019	0.0049 J	0.036	152	1
BXS-1 & BXS-5	Pentachlorophenol	ug/L	0.50	40	50	22	
MW-24 & MW-45	Pentachlorophenol	ug/L	0.50	68	65	5	

Notes

ug/L = micrograms per liter

J = Result is an estimated concentration that is less than the method reporting limit, but greater than or equal to the method detection limit.

U = Analyte was not detected above the reported sample quantification limit.

1 The difference between the detected results is less than the associated reporting limit value.

Table D-3. Qualifiers Added or Modified During Validation

J.H. Baxter & Co.
Arlington, Washington

Sample ID	Analyte	Unit	Result	Qualifier	Reason Codes
BXS-1	naphthalene	ug/L	0.019	U	RB
BXS-2	naphthalene	ug/L	0.045	U	RB
BXS-2	acenaphthene	ug/L	0.0059	NJ	DL, MI
BXS-5	naphthalene	ug/L	0.036	U	RB
BXS-5	acenaphthene	ug/L	0.019	UJ	MI
BXS-5	benz(a)anthracene	ug/L	0.019	U	MB
MW-30	benz(a)anthracene	ug/L	0.019	U	MB
MW-35	naphthalene	ug/L	0.019	U	RB
MW-36	naphthalene	ug/L	0.019	U	RB
MW-36	benz(a)anthracene	ug/L	0.019	U	MB
MW-36	indeno(1,2,3-cd)pyrene	ug/L	0.0048	NJ	DL, HC
MW-37	naphthalene	ug/L	0.019	U	RB
MW-3	benz(a)anthracene	ug/L	0.020	U	MB
MW-15	naphthalene	ug/L	0.019	U	RB
MW-16	naphthalene	ug/L	0.029	U	RB
MW-17	naphthalene	ug/L	0.019	U	RB
MW-18	naphthalene	ug/L	0.036	U	RB
MW-18	benz(a)anthracene	ug/L	0.019	U	MB
MW-2	naphthalene	ug/L	0.020	U	RB
EW 2-4	2,4,5-trichlorophenol	ug/L	1.0	U	MI

Notes

ug/L = micrograms per liter

Qualifier Definitions

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

NJ = The analyte has been tentatively identified, and the associated numerical value is the estimated concentration in the sample.

U = Analyte was not detected above the reported sample quantification limit.

UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may be inaccurate or imprecise.

Reason Code Definitions

DL = The analyte was detected at a concentration greater than the method detection limit but lower than the method reporting limit.

HC = High continuing calibration verification recovery. Analytical result may be biased high.

MB = The analyte was detected in the sample and the method blank. The sample concentration is less than five times the concentration detected in the method blank.

MI = Matrix interference prevented adequate resolution of the target compound at the normal limit.

RB = The analyte was detected in the sample and the associated rinsate blank. The sample concentration is less than five times the concentration detected in the rinsate blank.

